

FIG. 1

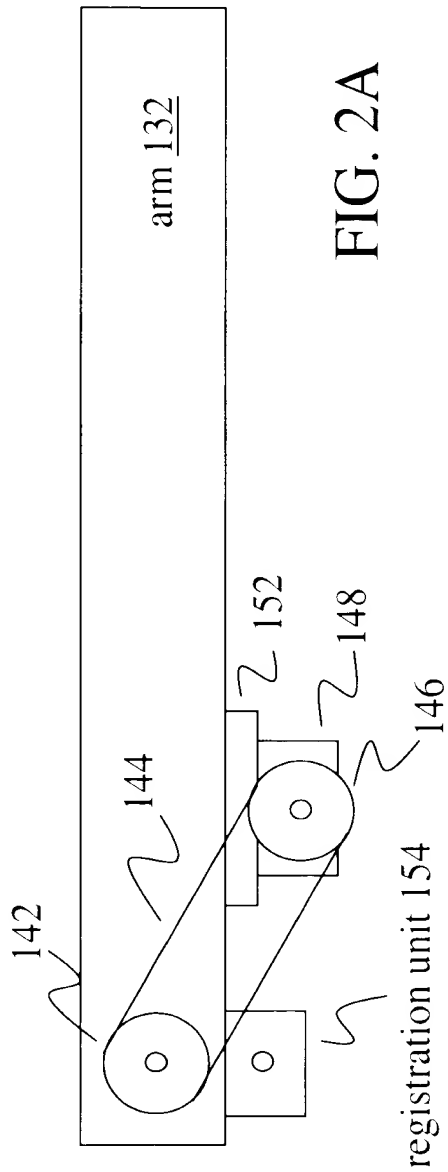


FIG. 2A

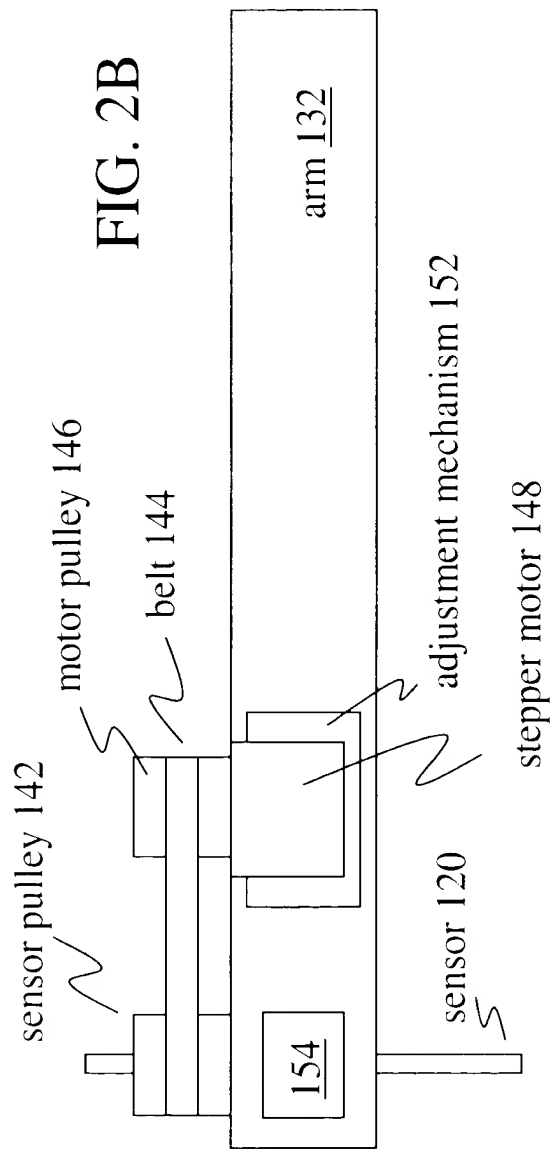


FIG. 2B

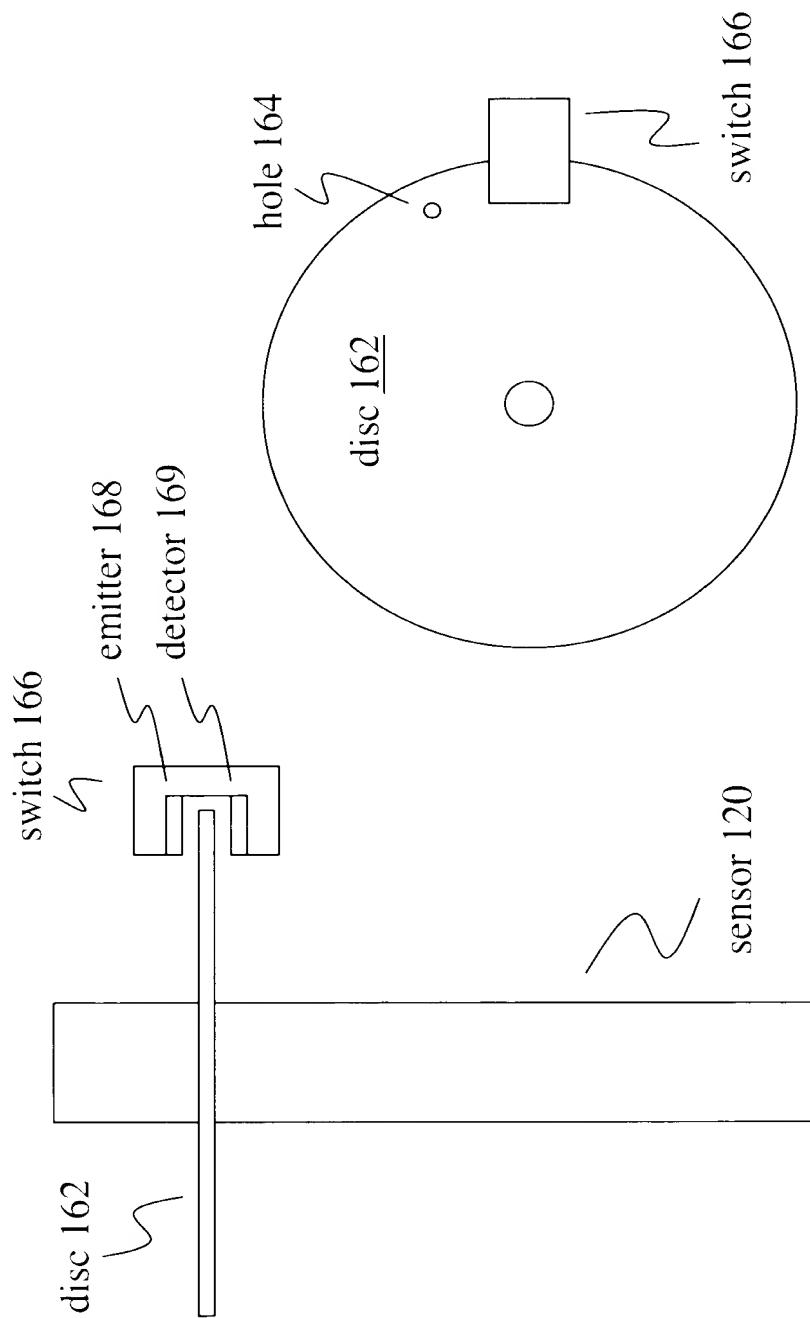


FIG. 3A

FIG. 3B

FIG. 4 is a schematic diagram of a probe assembly.

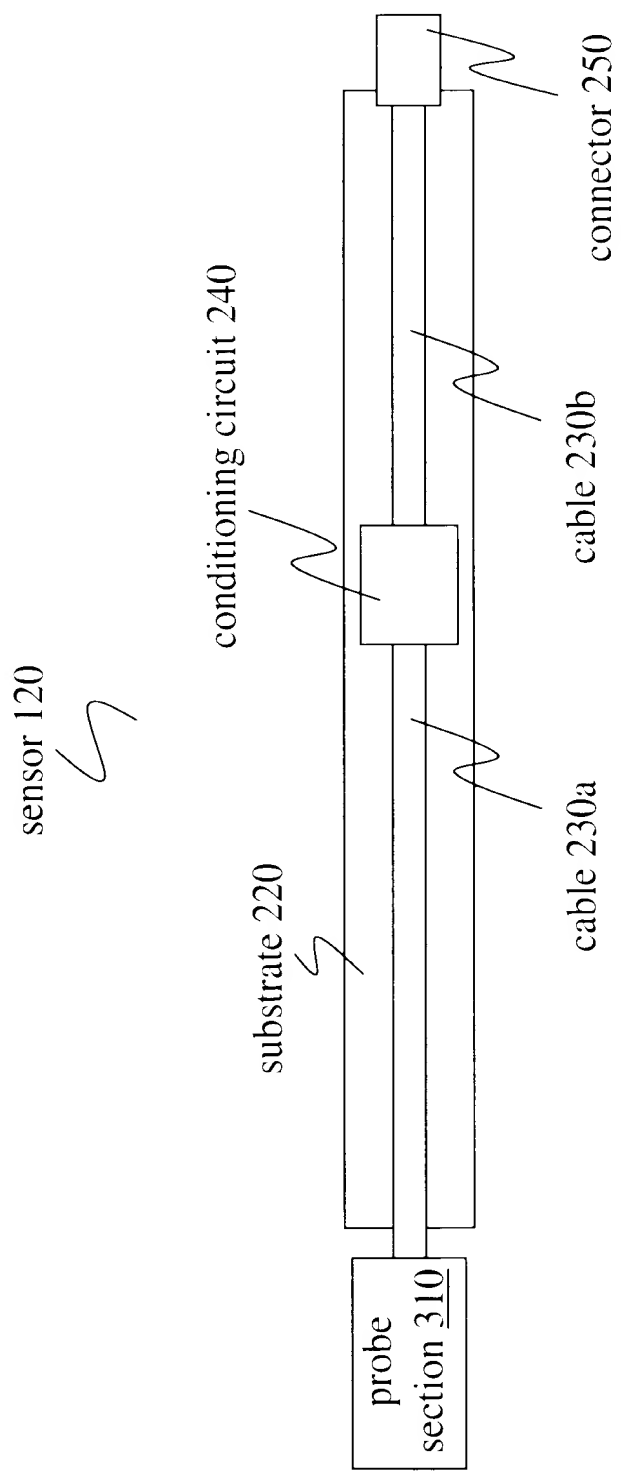


FIG. 4

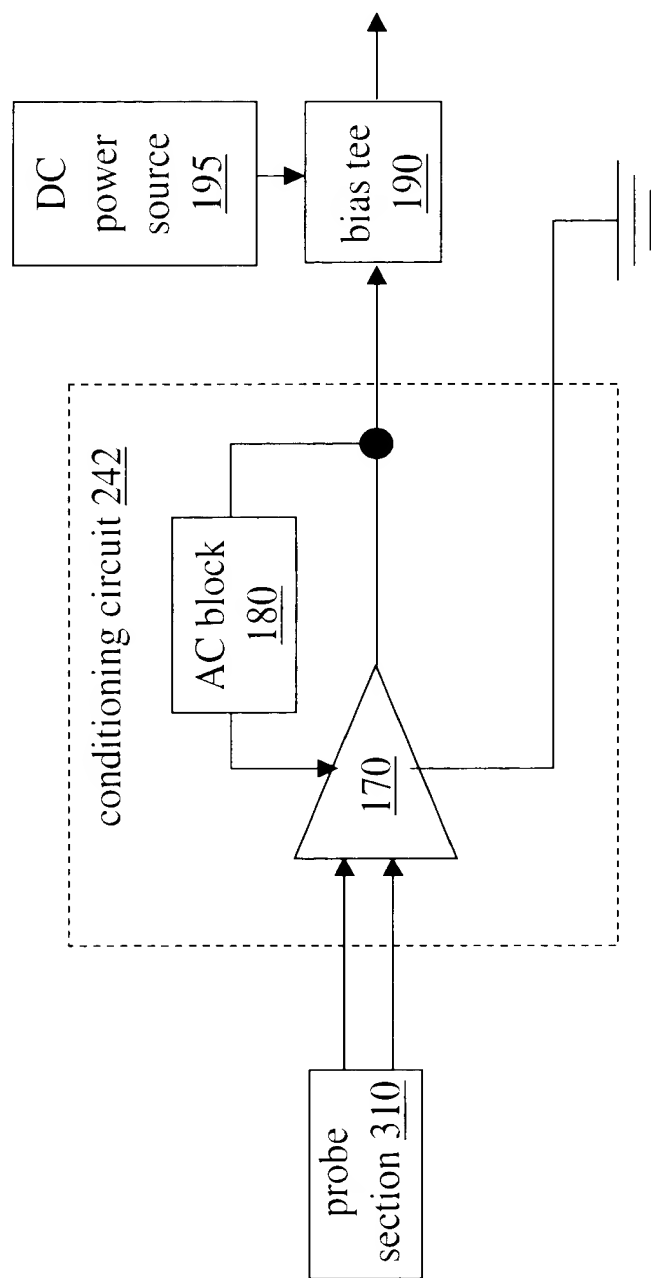


FIG. 5

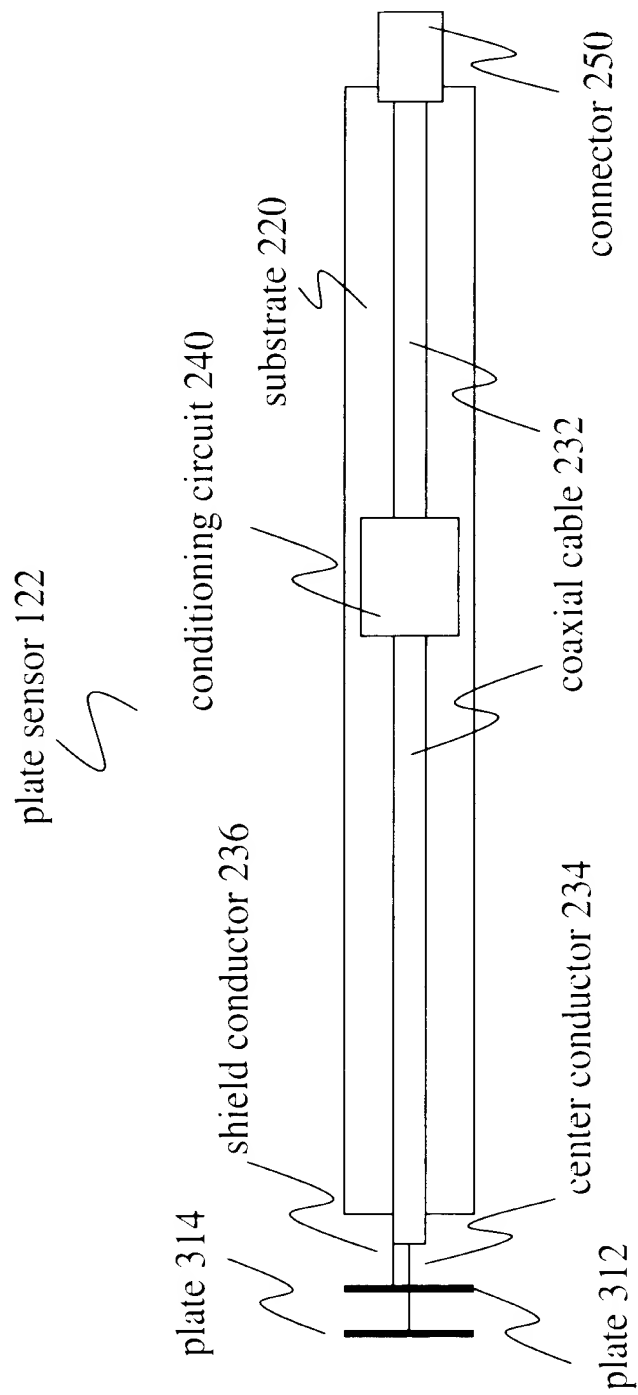


FIG. 6

FIG. 7A

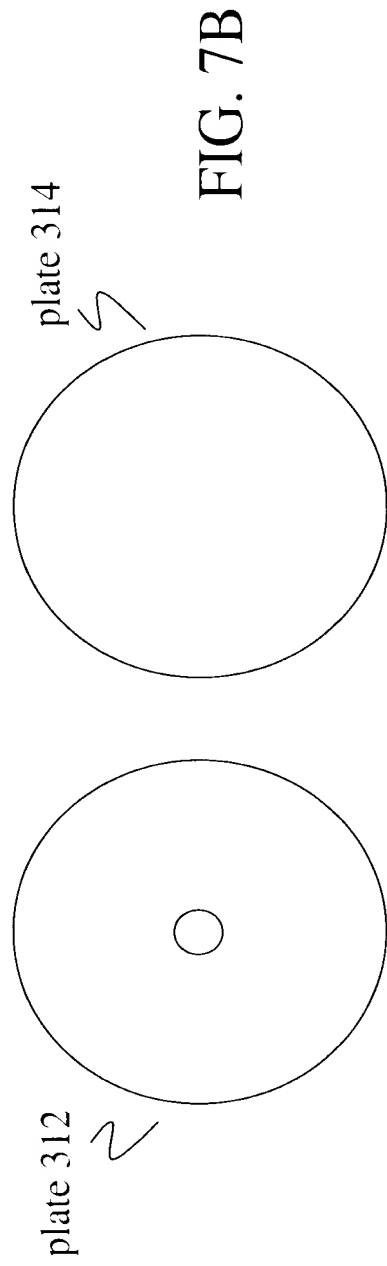
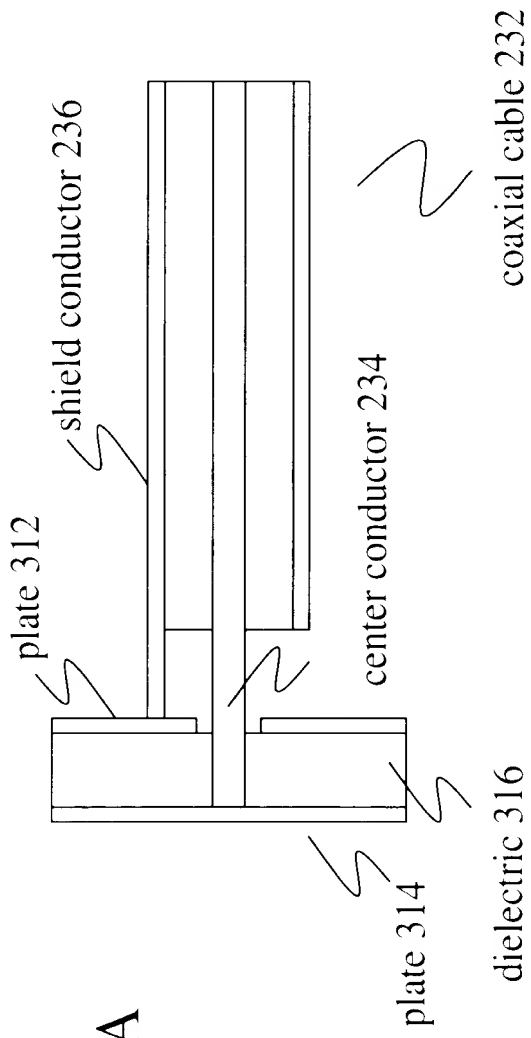


FIG. 7B

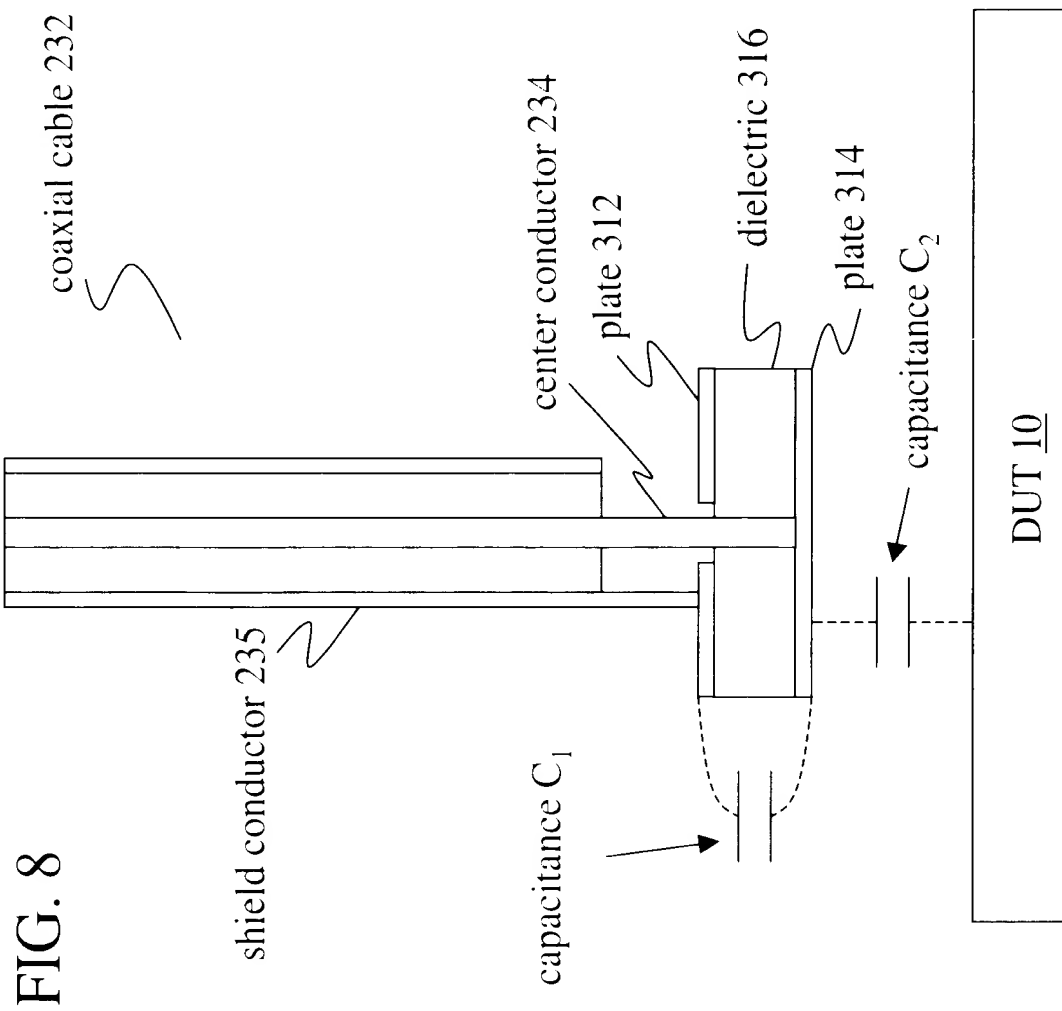
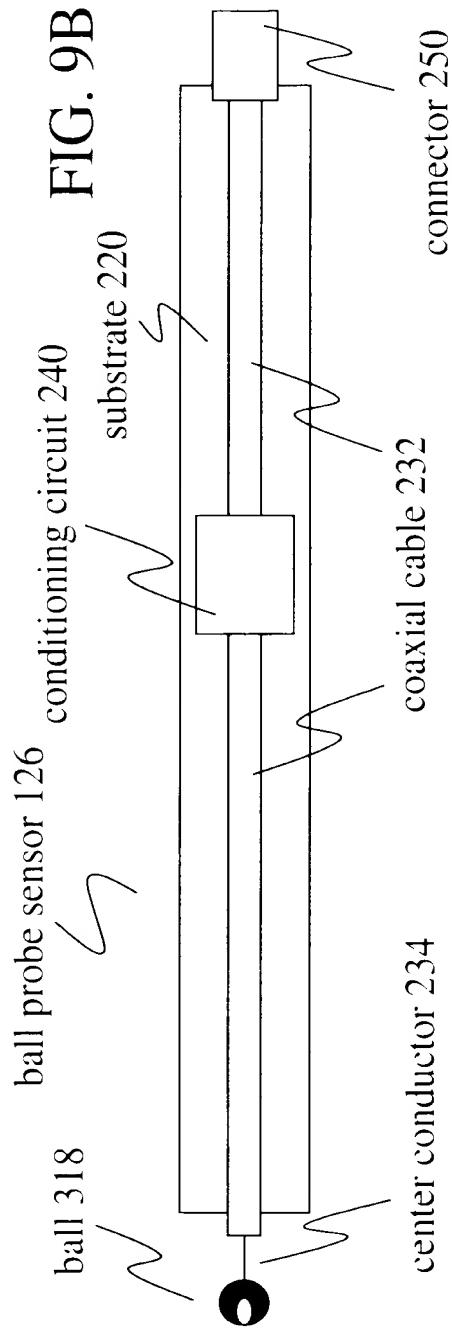
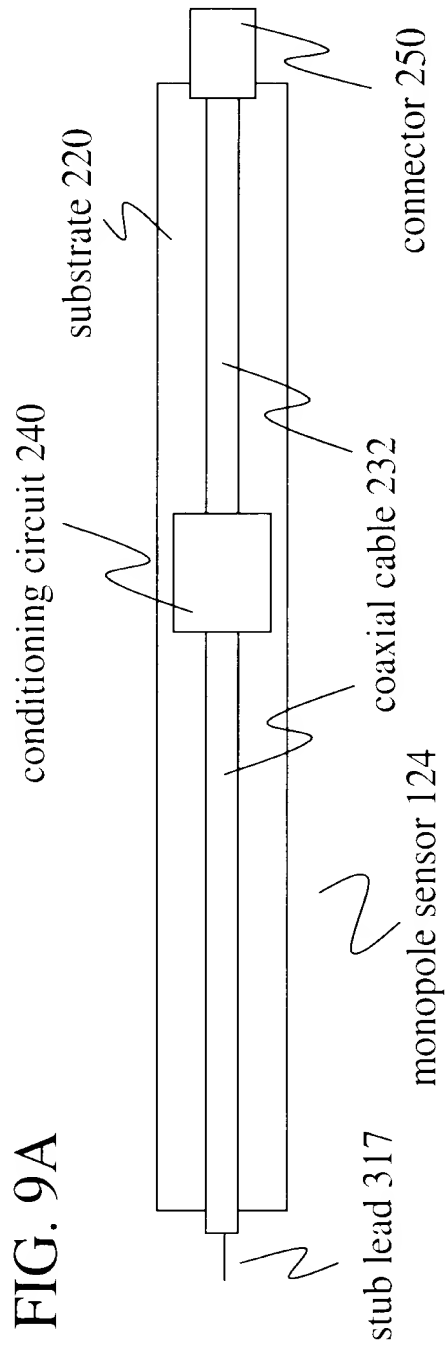
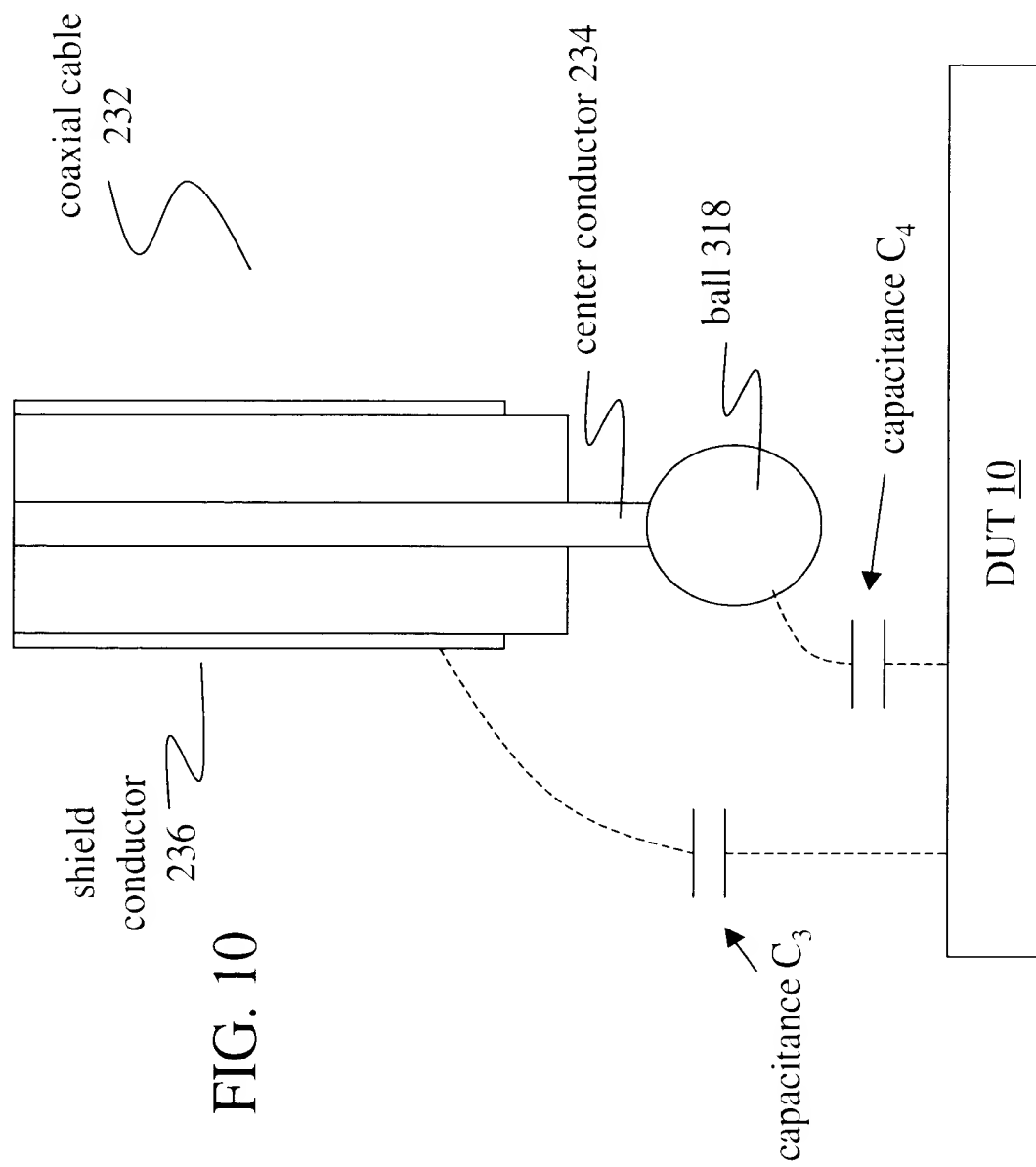


FIG. 9A





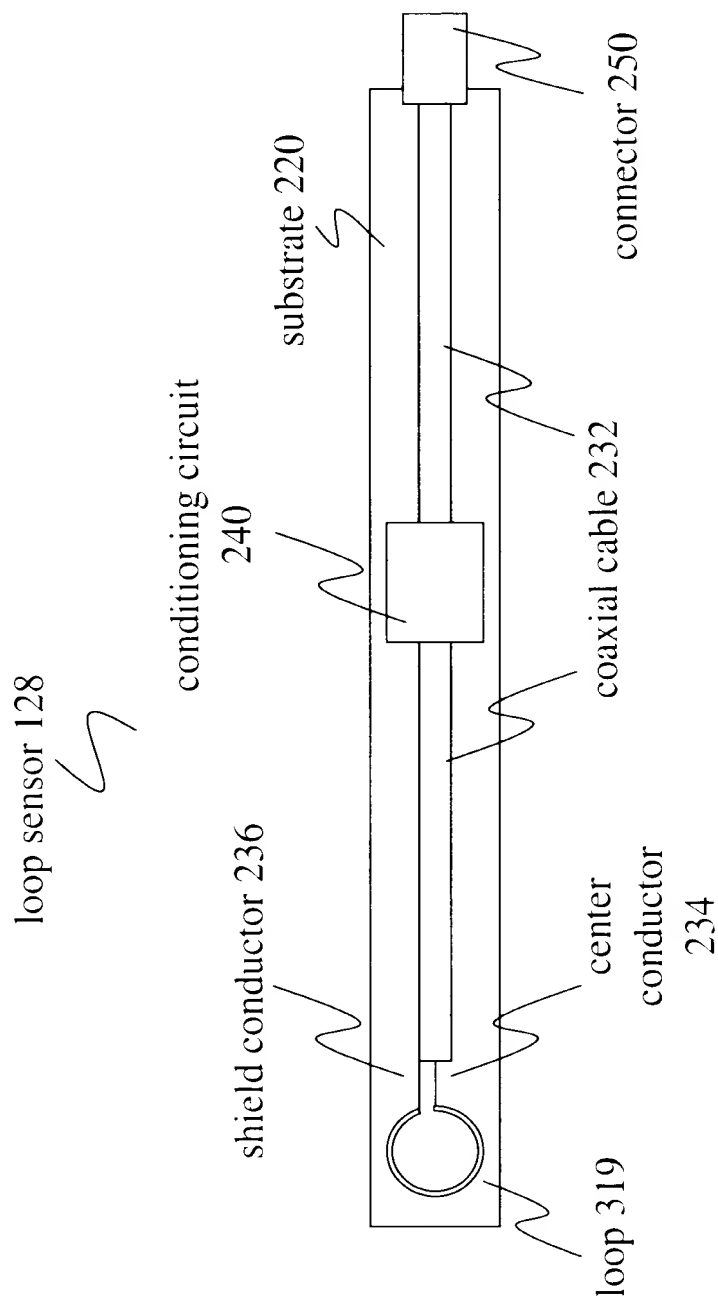


FIG. 11

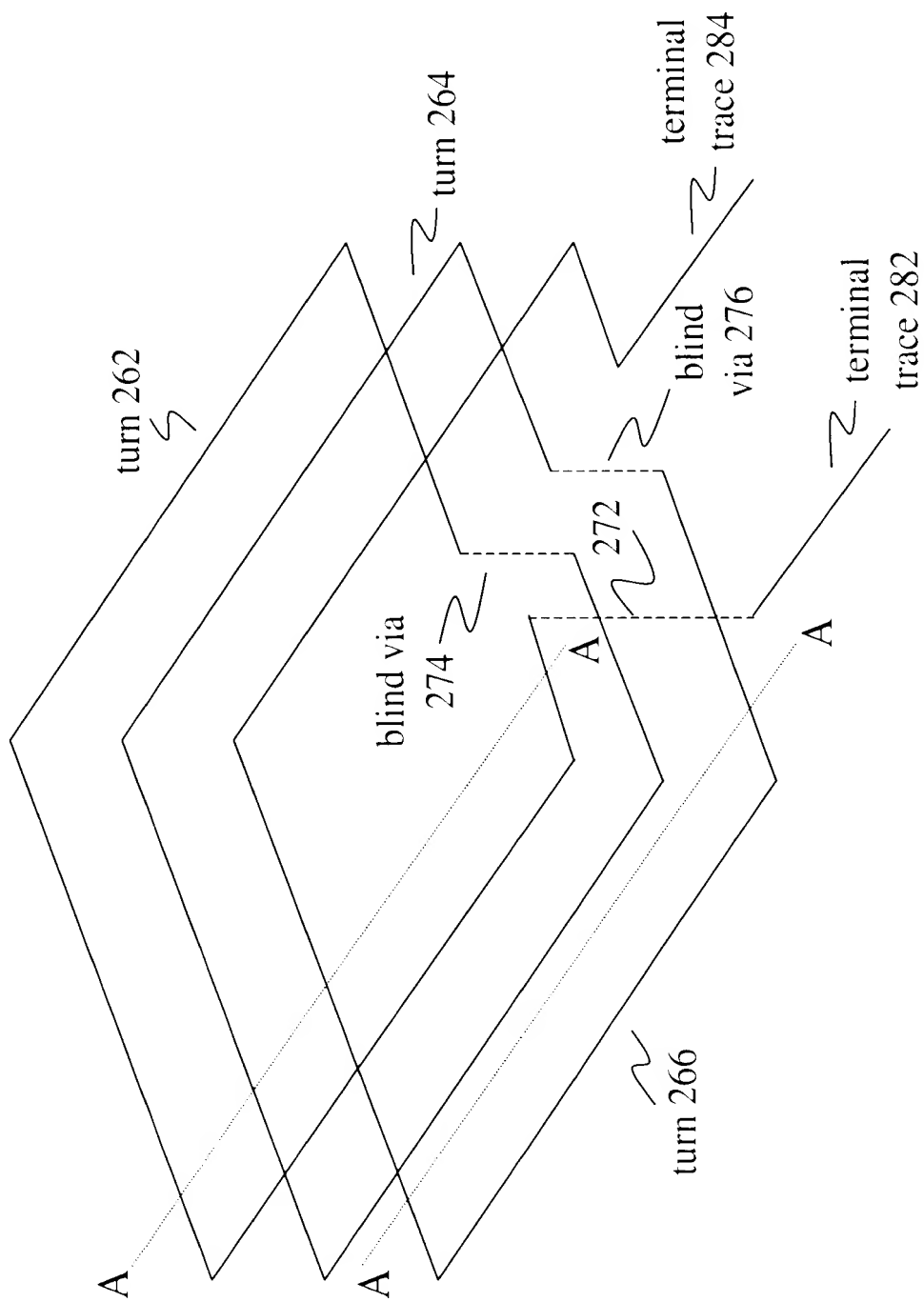


FIG. 12

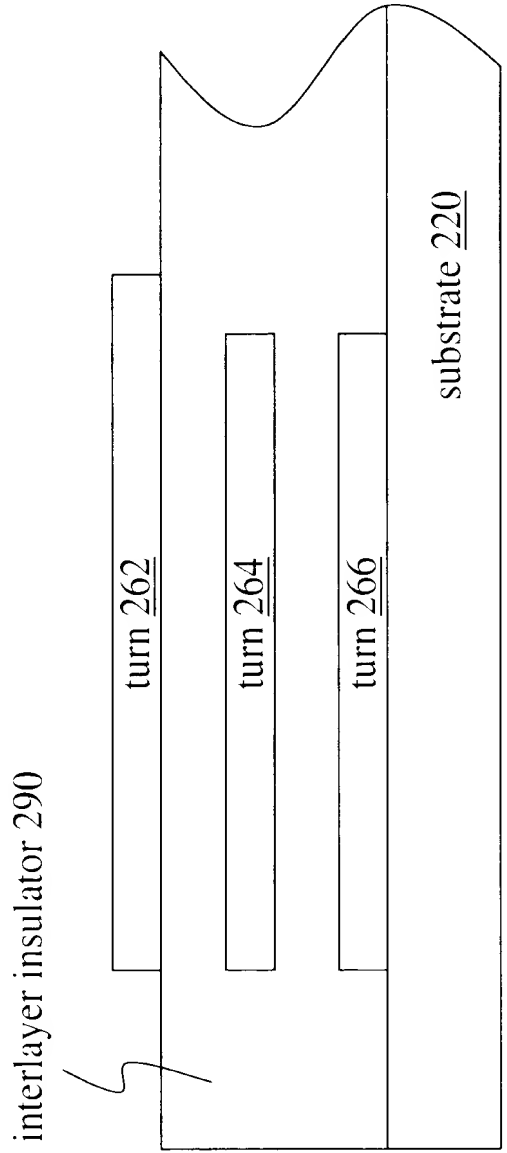


FIG. 13

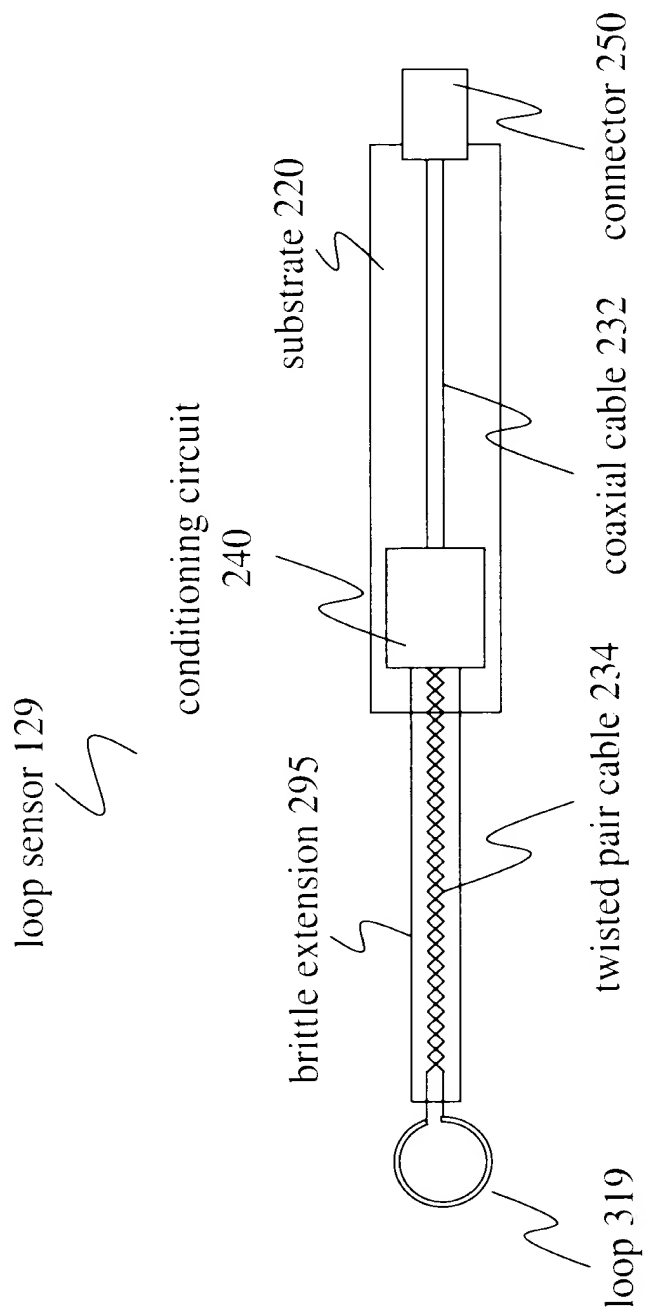


FIG. 14

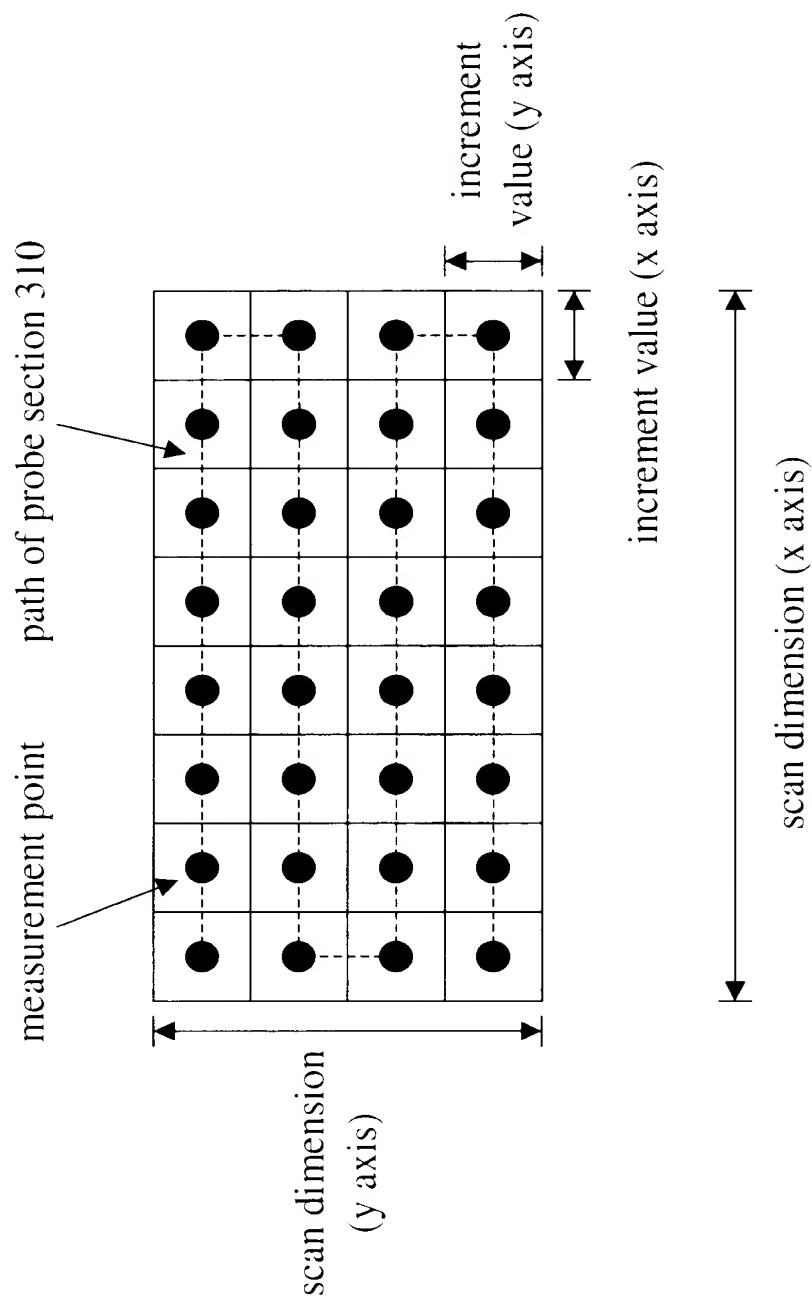


FIG. 15



FIG. 16

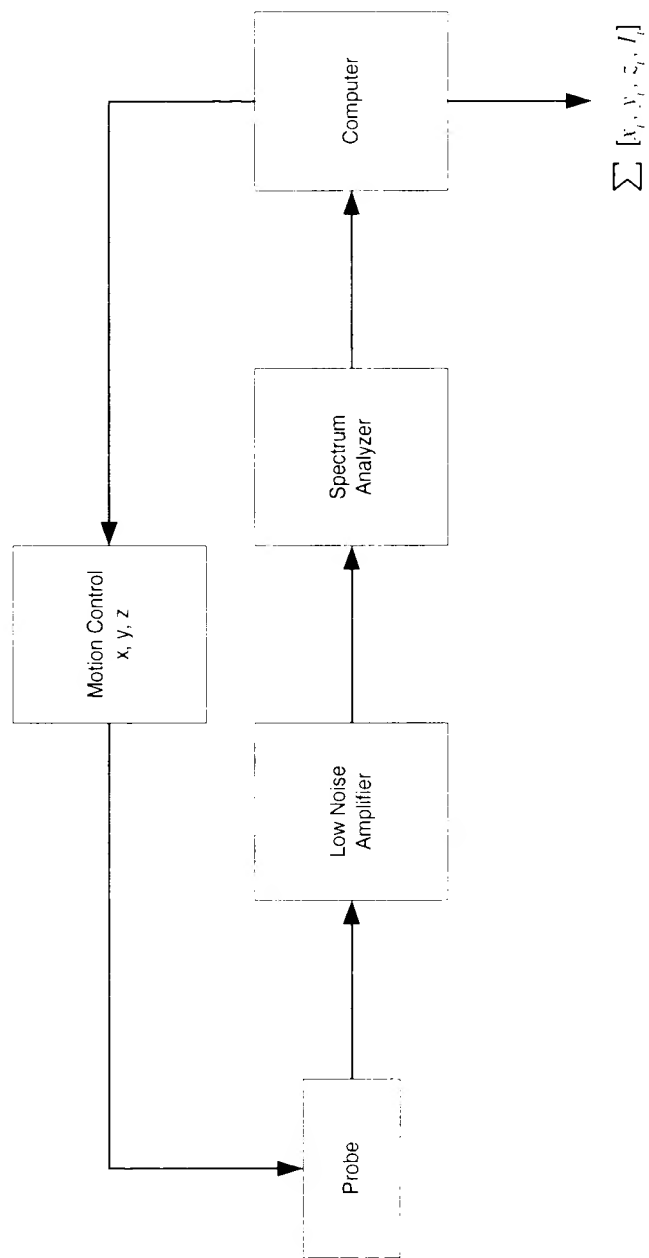


FIG. 17

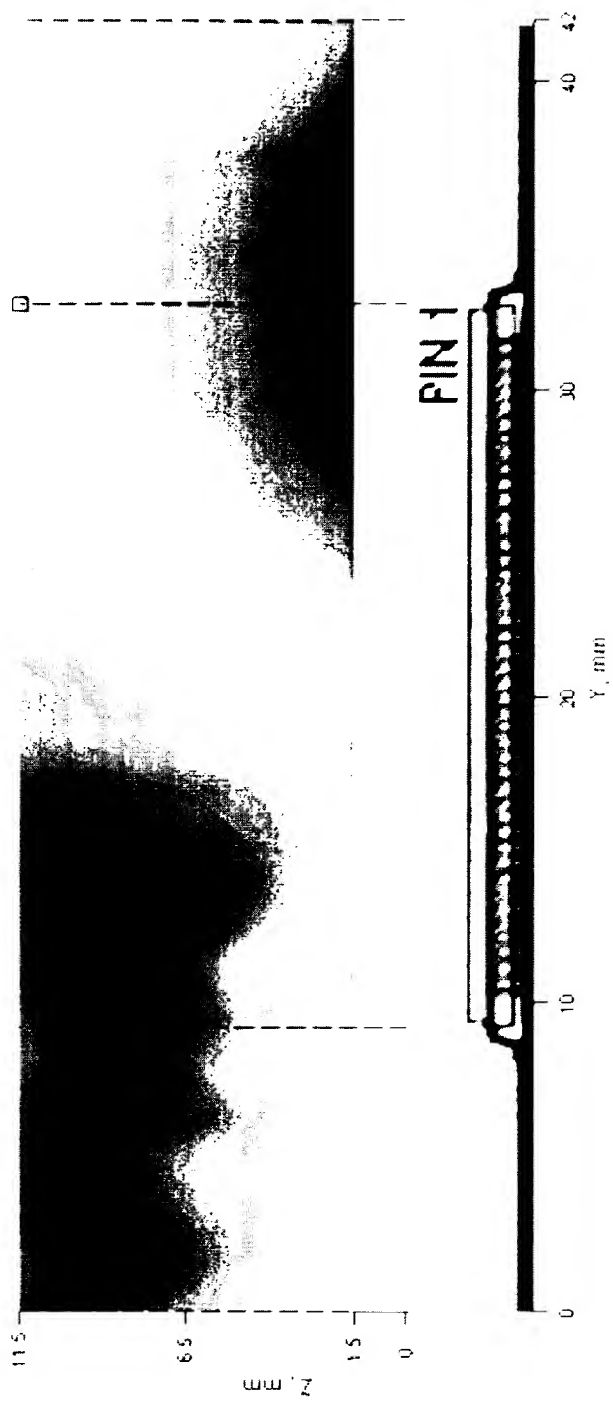


FIG. 18

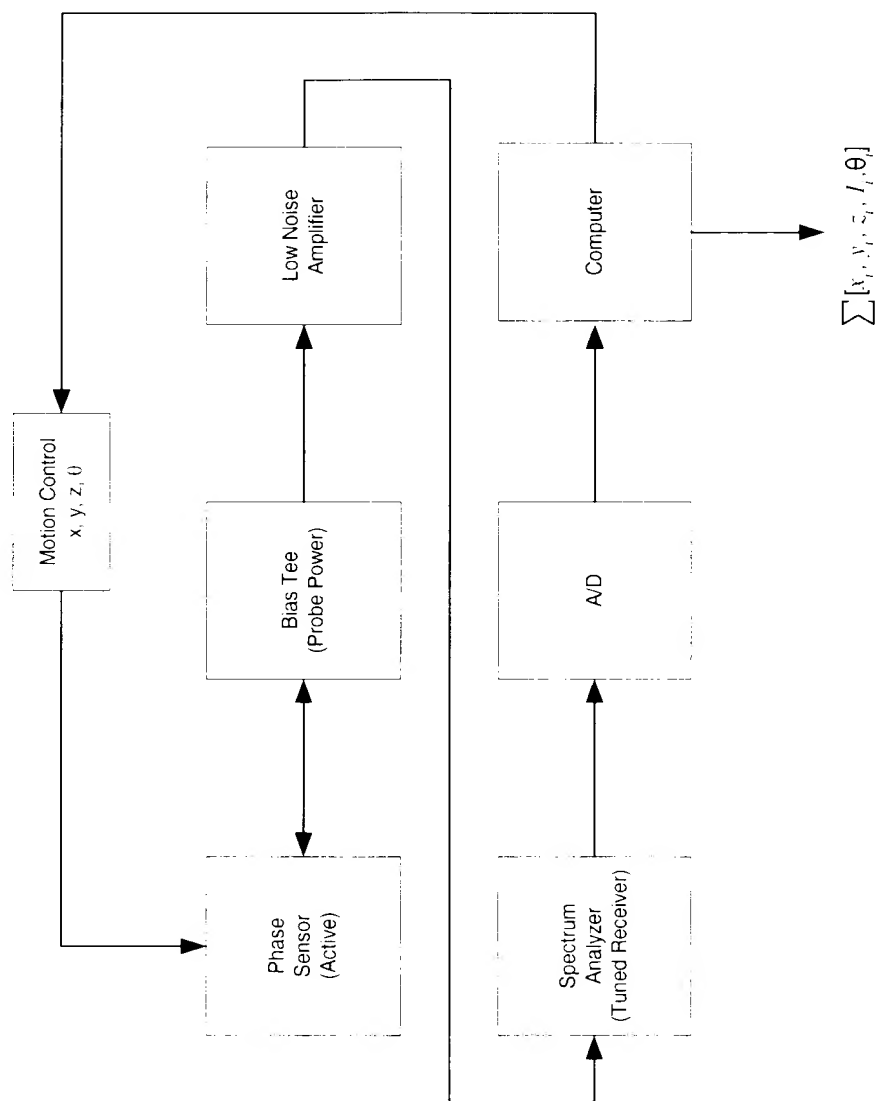


FIG. 19

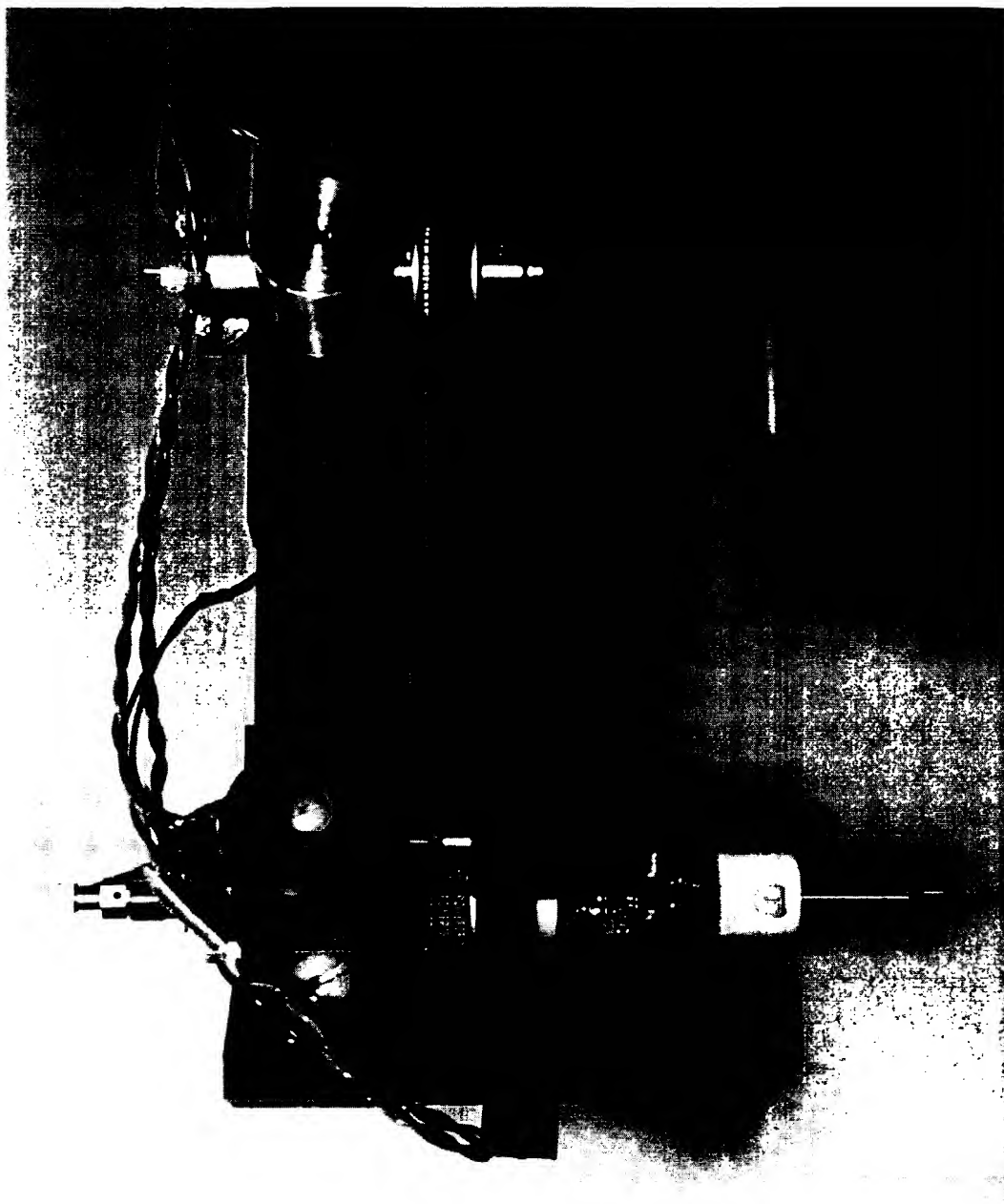


FIG. 20

11/16/99 - Micro stripline is terminated in 50 ohms. Frequency: 1000 MHz  
 Probe Type: Magnetic Field. Measurement Increments dx: 1.94 mm, dy: 1.97 mm, dz: 0 mm  
 Number of Planes: 1, at 14.52 mm above DUT. Magnetic Field Intensity Unit: dB  $\mu$ A/m.

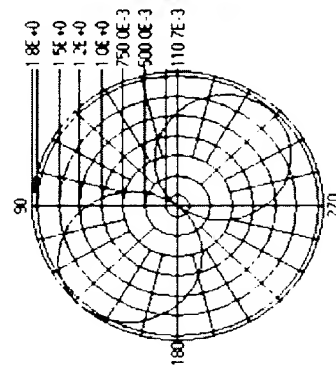
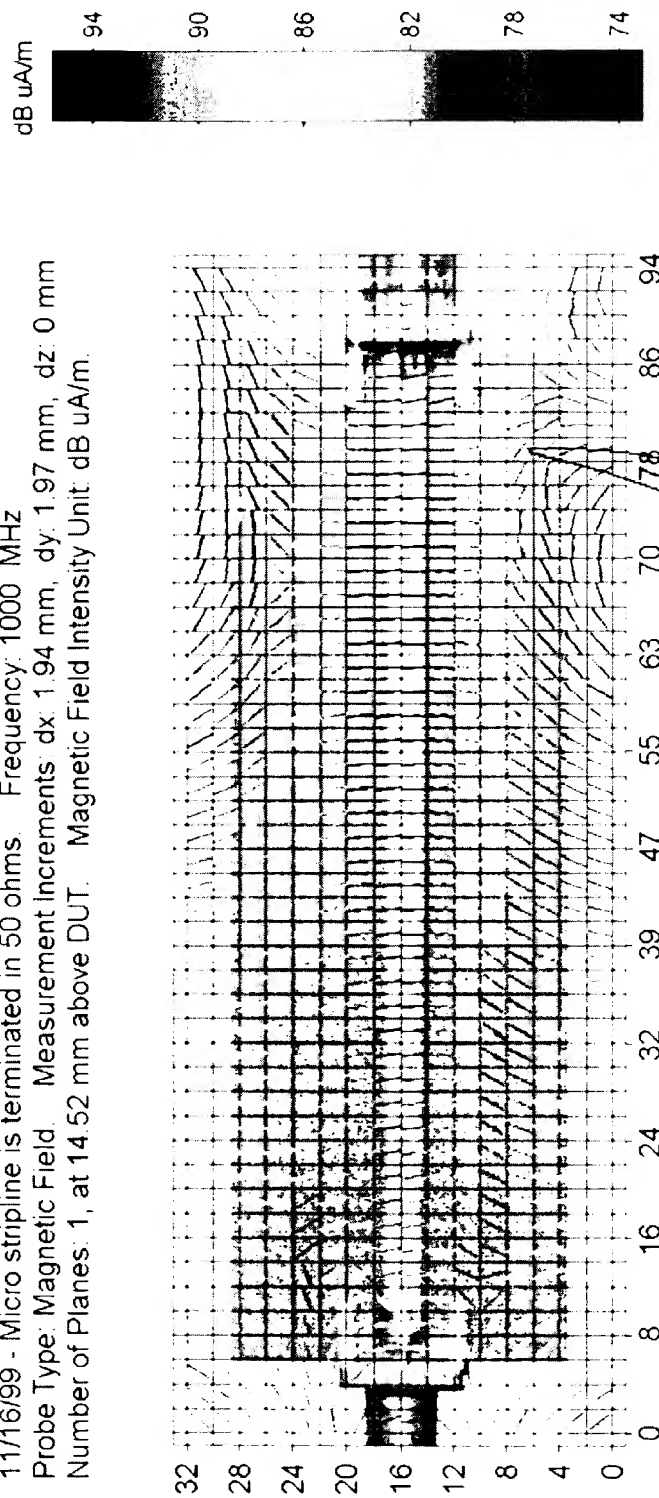


FIG. 21

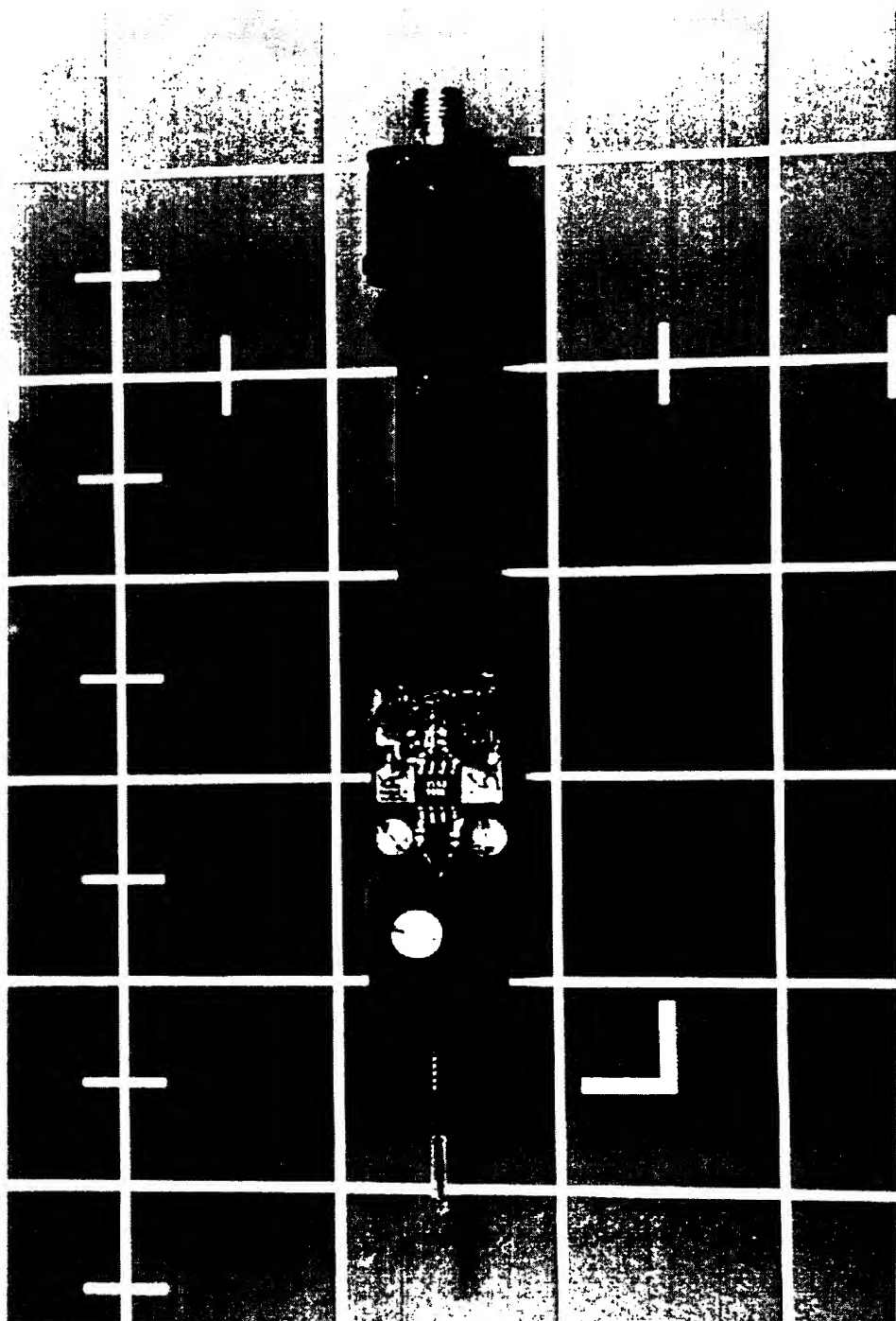


FIG. 22

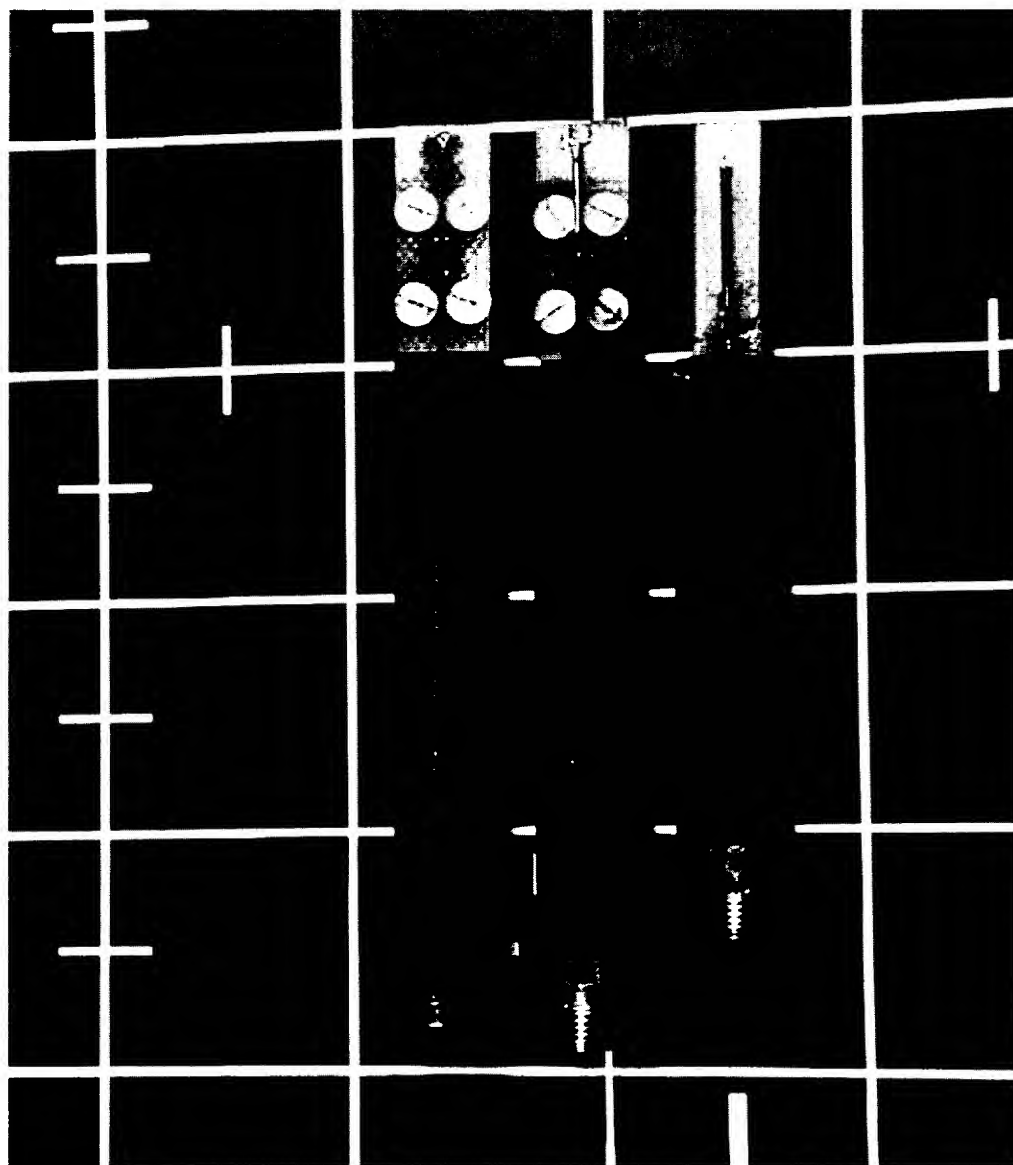


FIG. 23

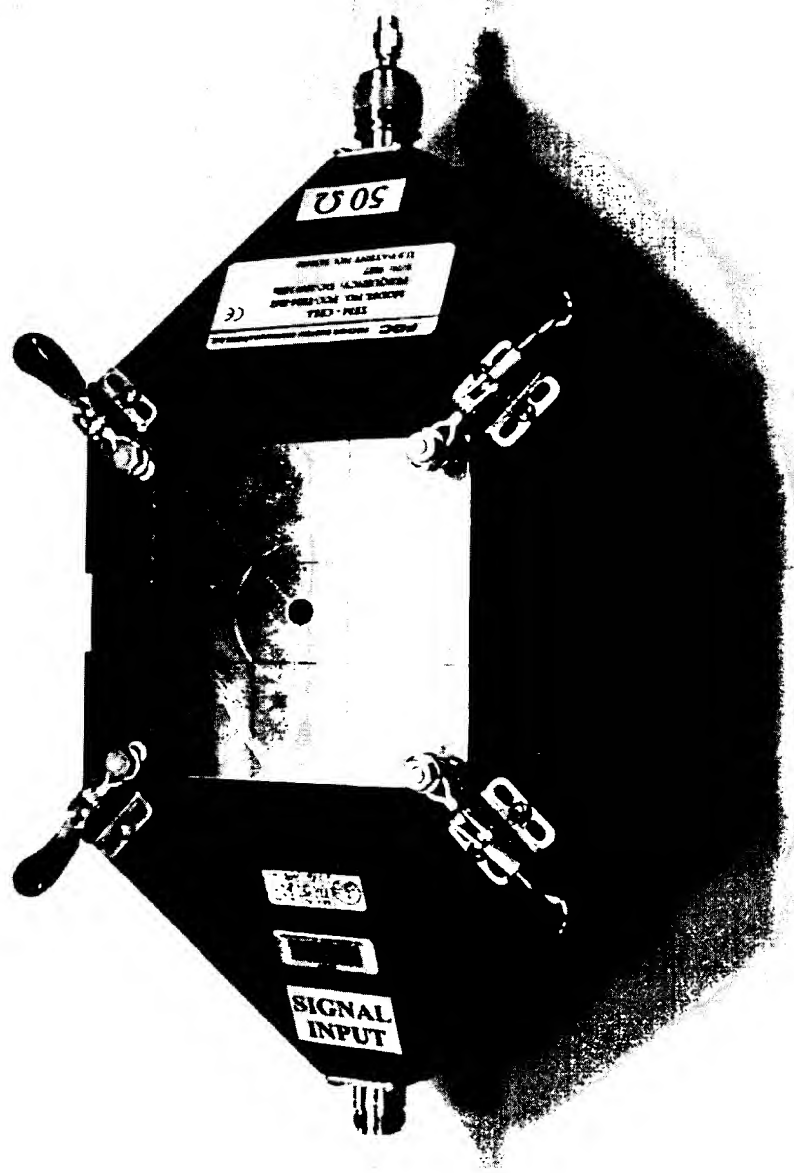


FIG. 24

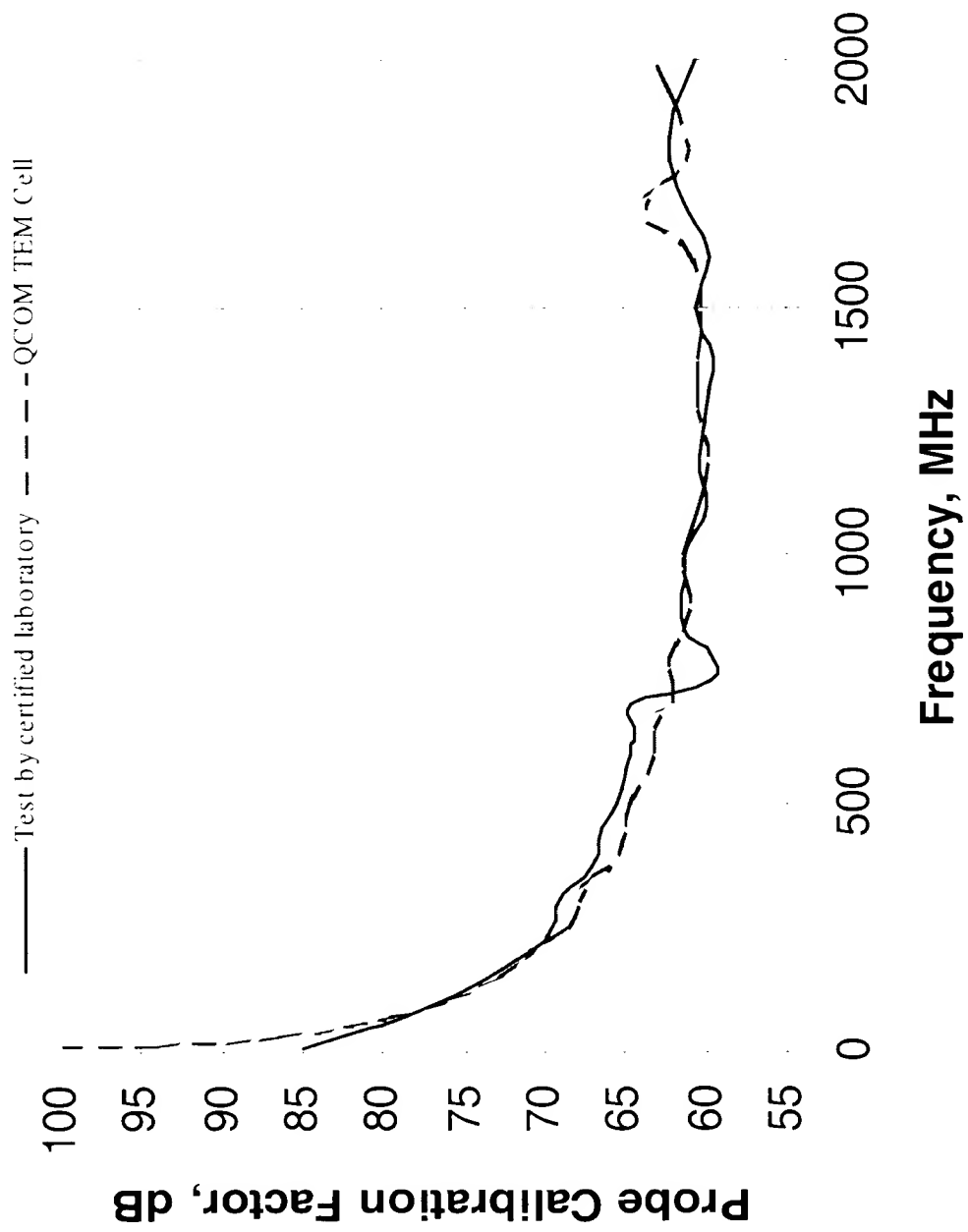


FIG. 25

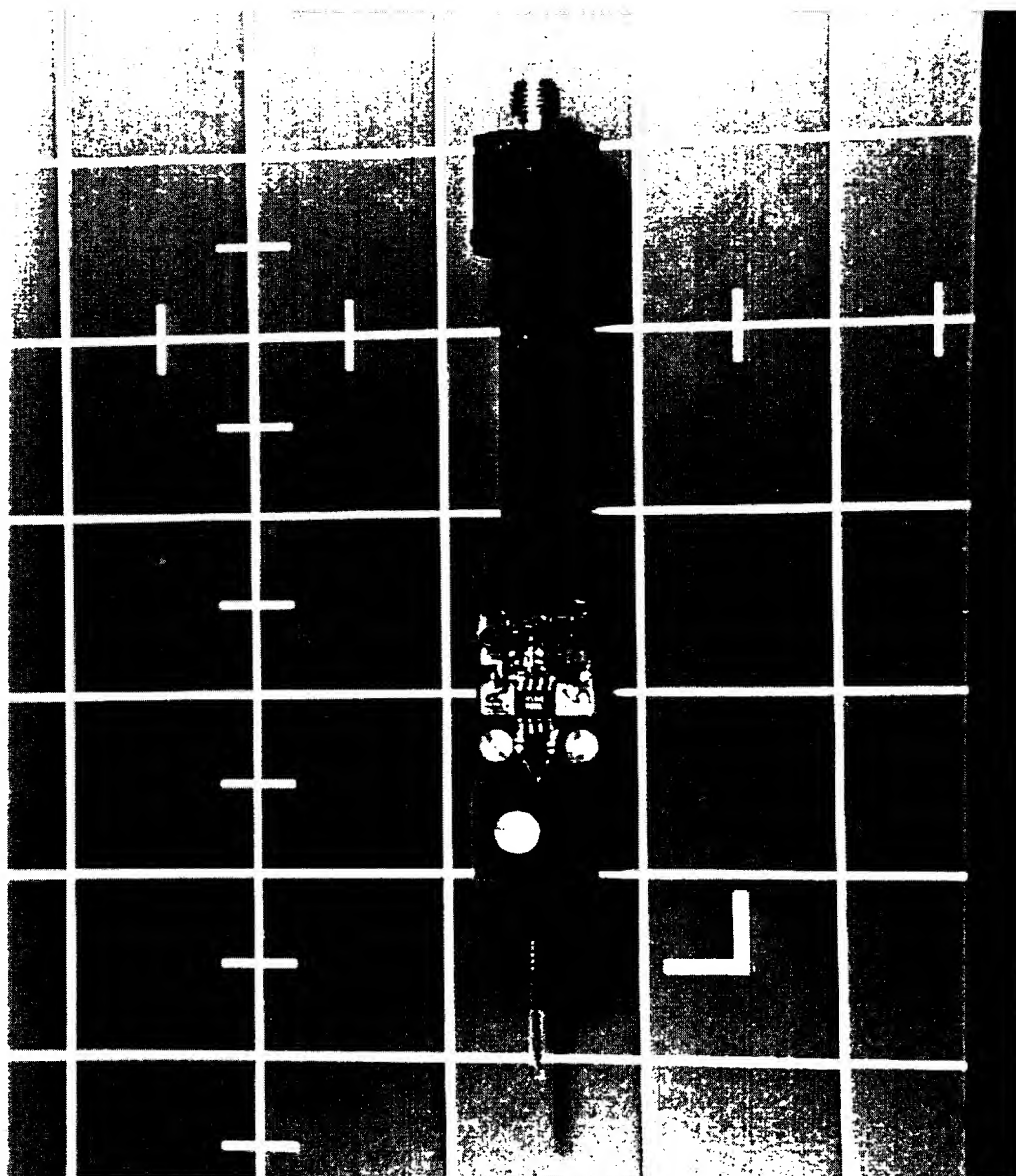


FIG. 26

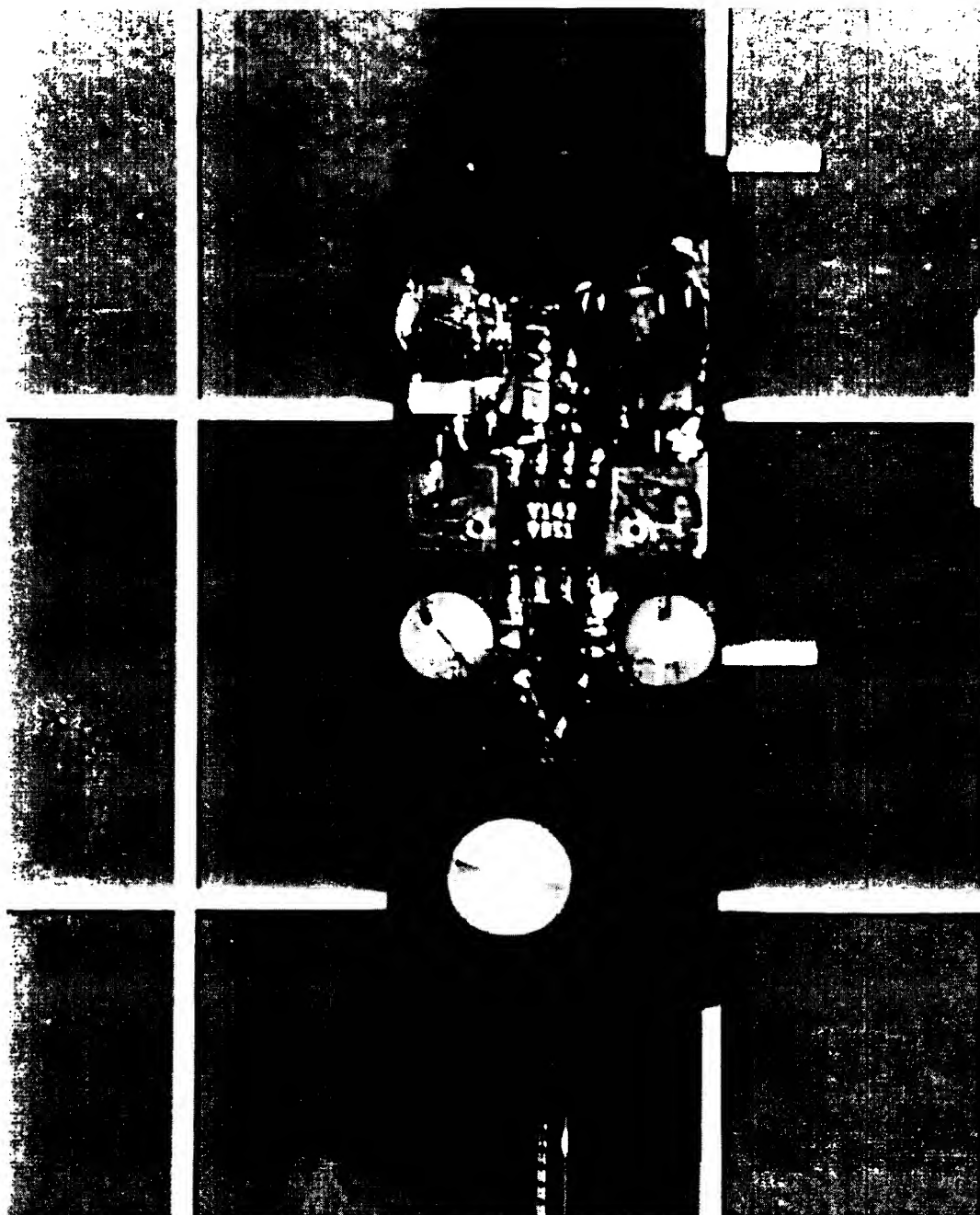
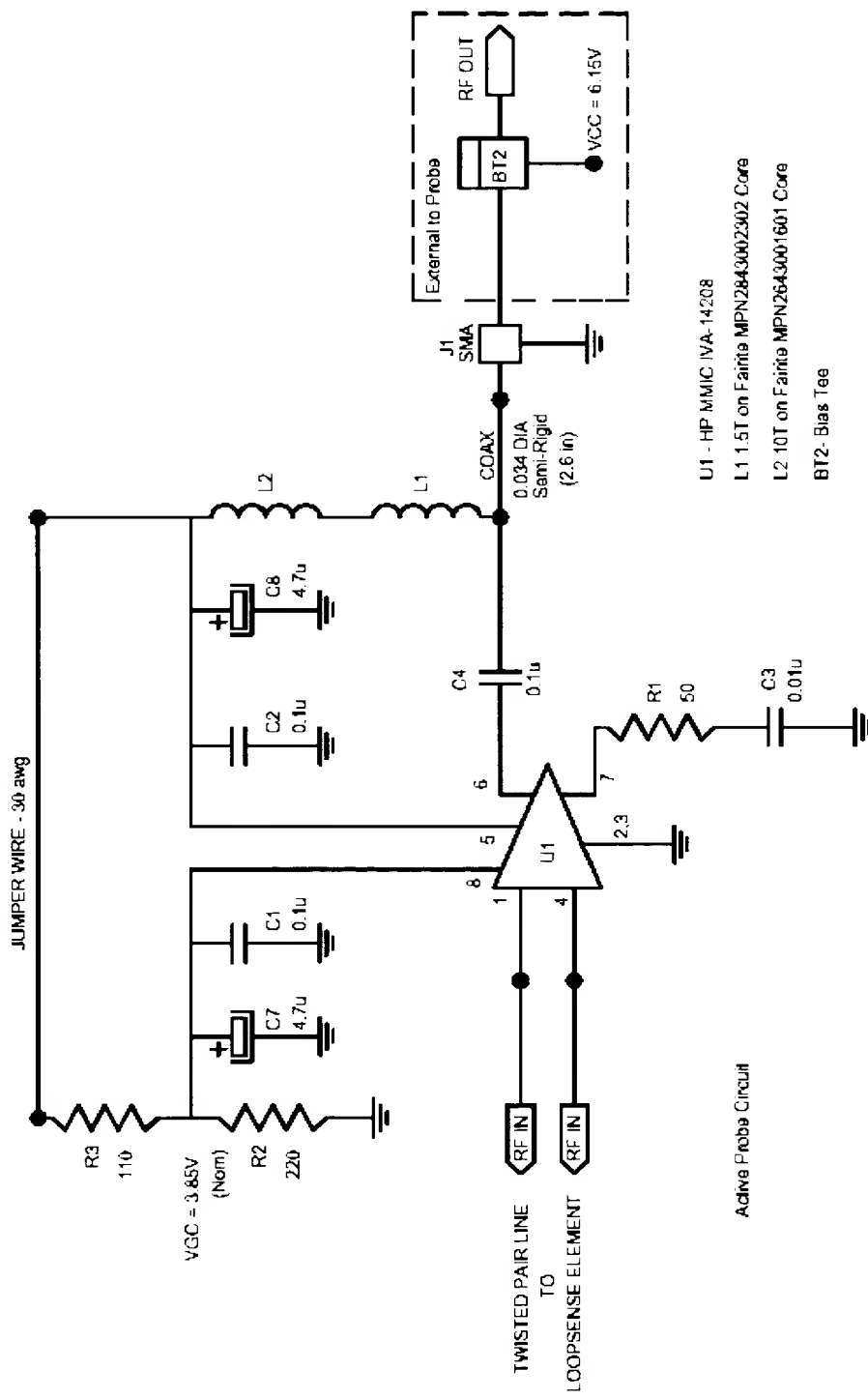


FIG. 27



- U1 - HP MMIC IVA-14208
- L1 1.5T on Fairite MPN2843002302 Core
- L2 10T on Fairite MPN2643001601 Core
- BT2 - Bias Tee

Active Probe Circuit

FIG. 28

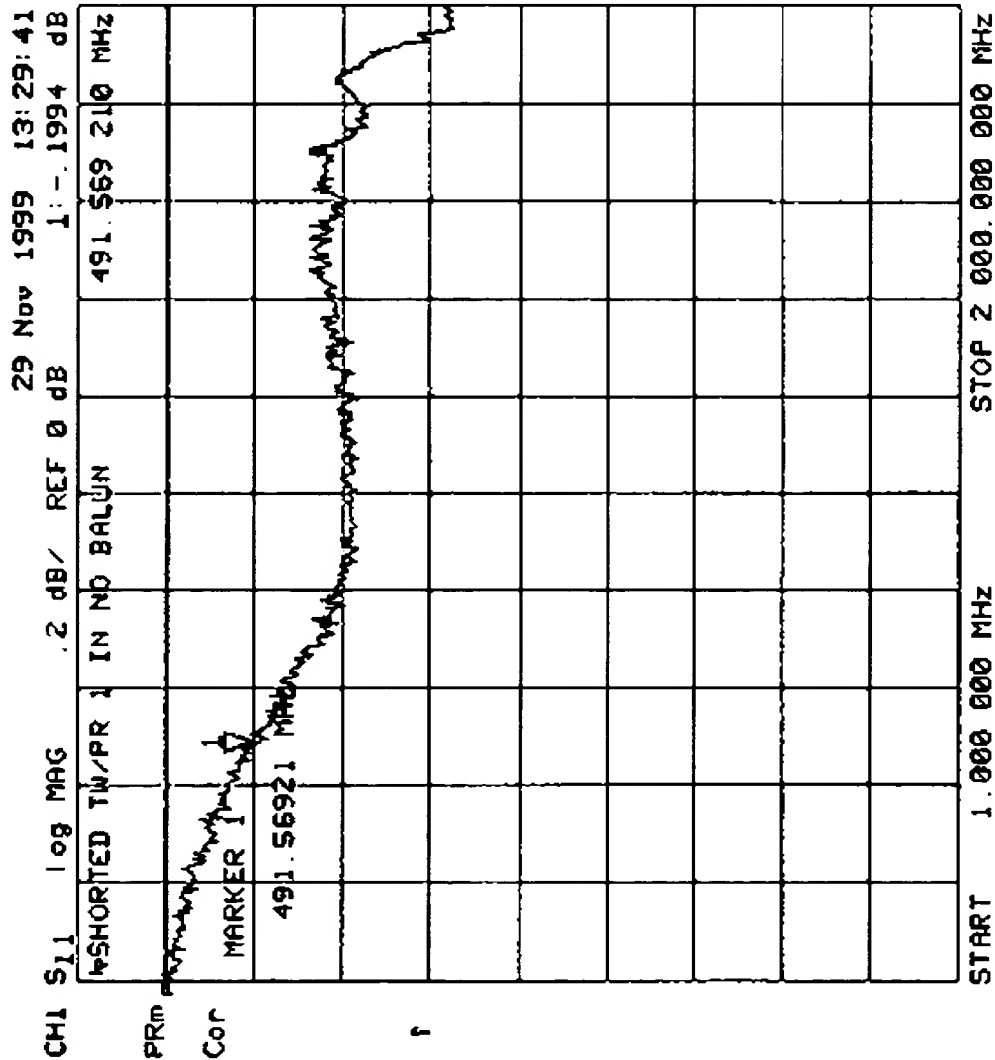
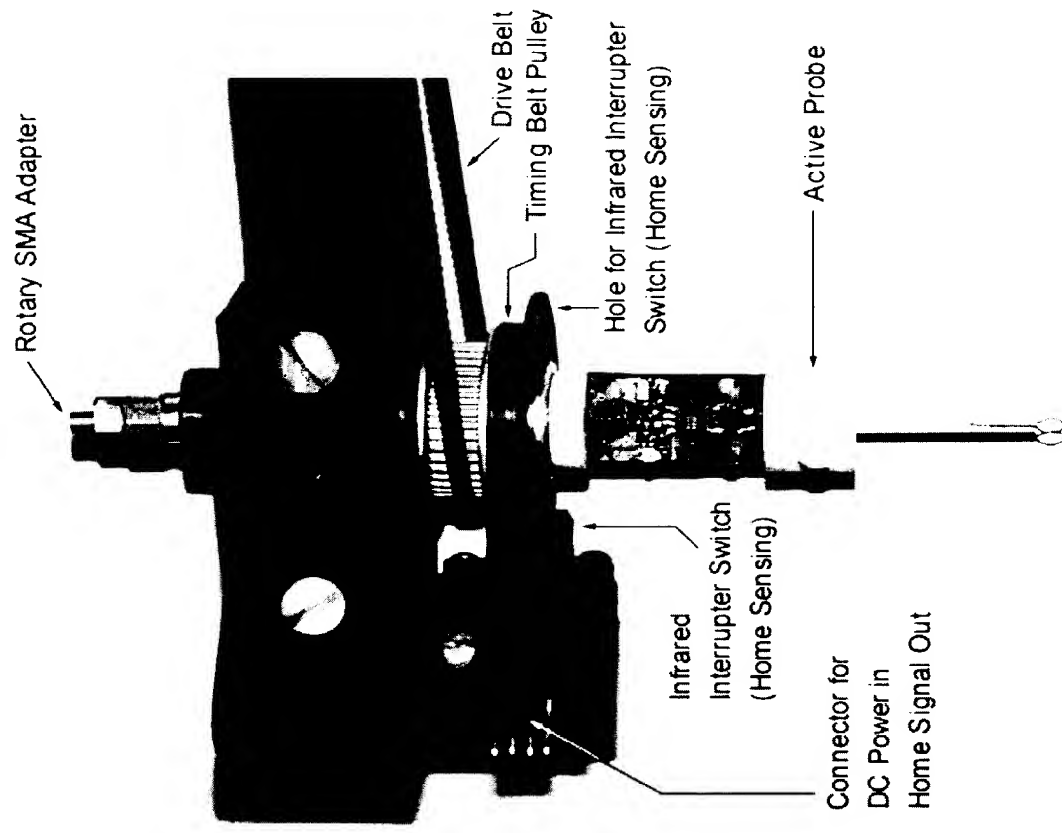


FIG. 29

FIG. 30



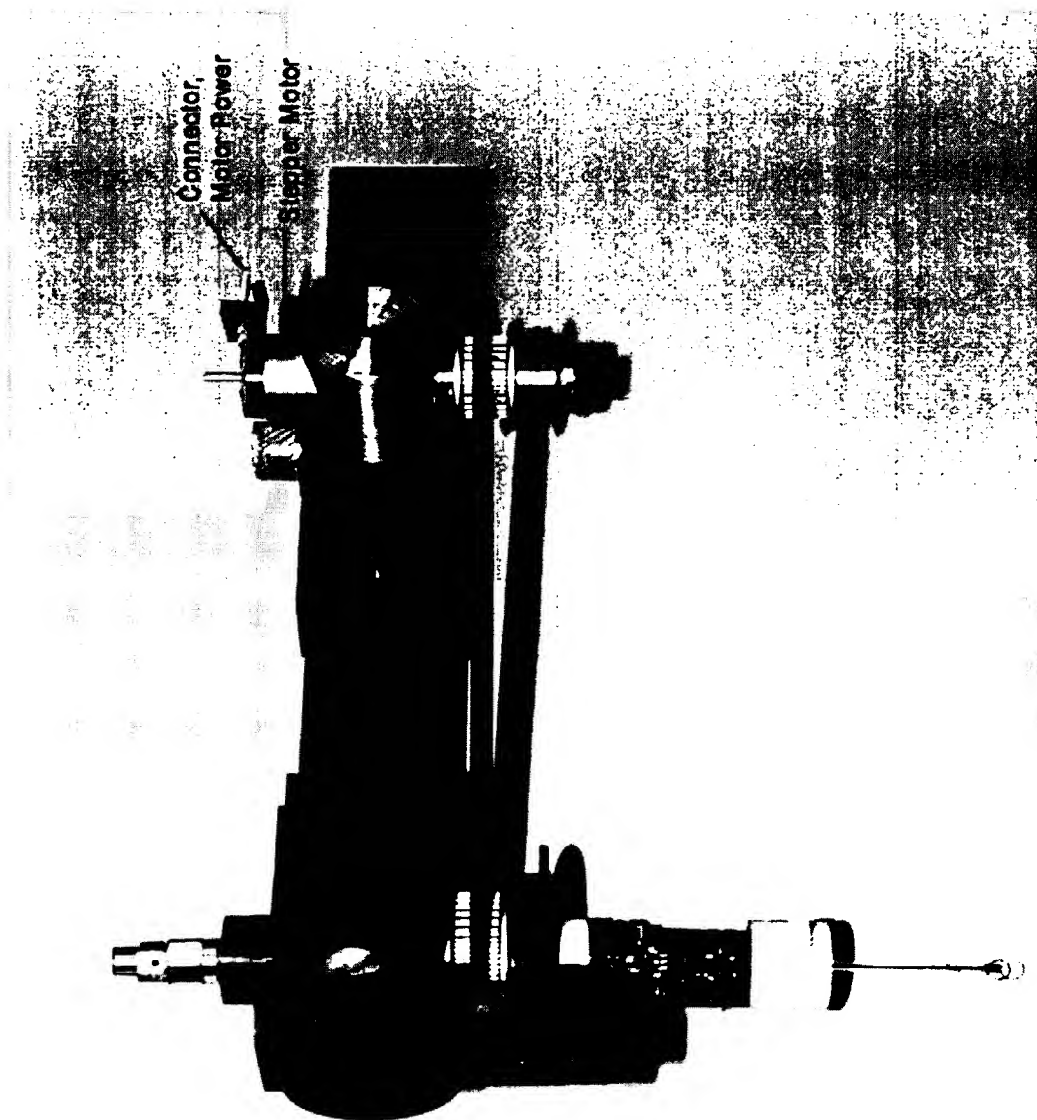


FIG. 31

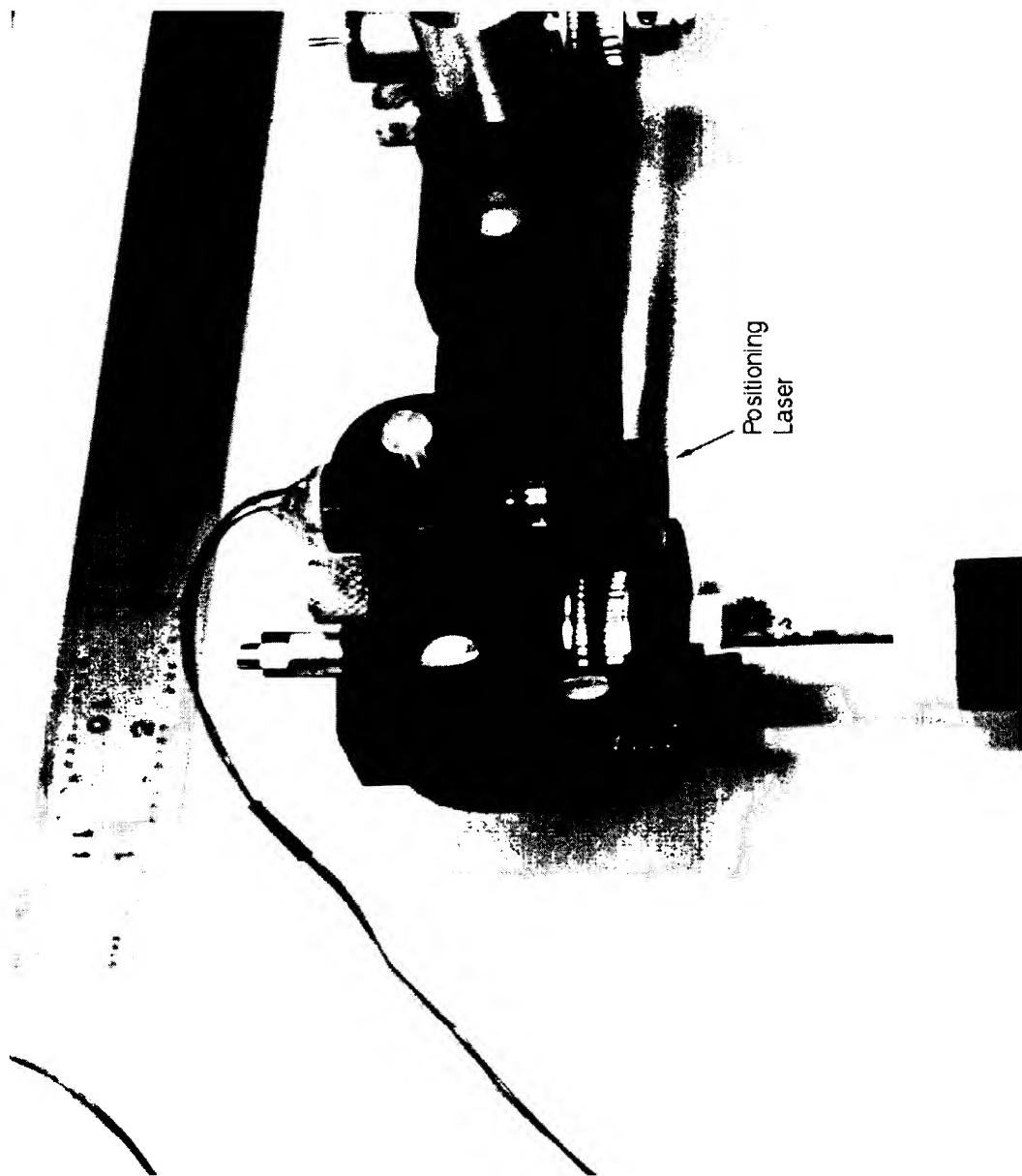


FIG. 32

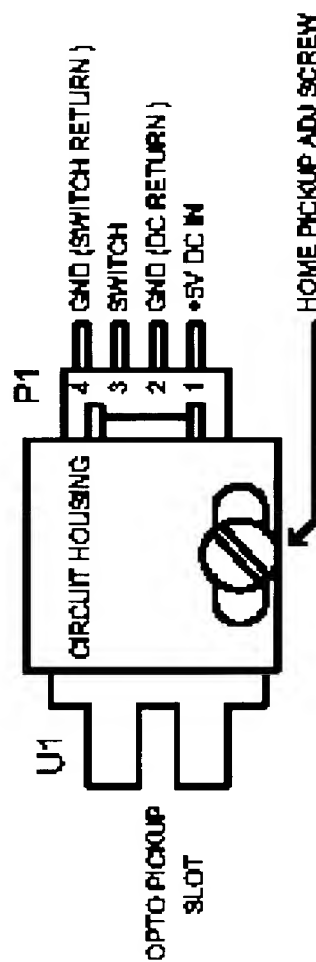
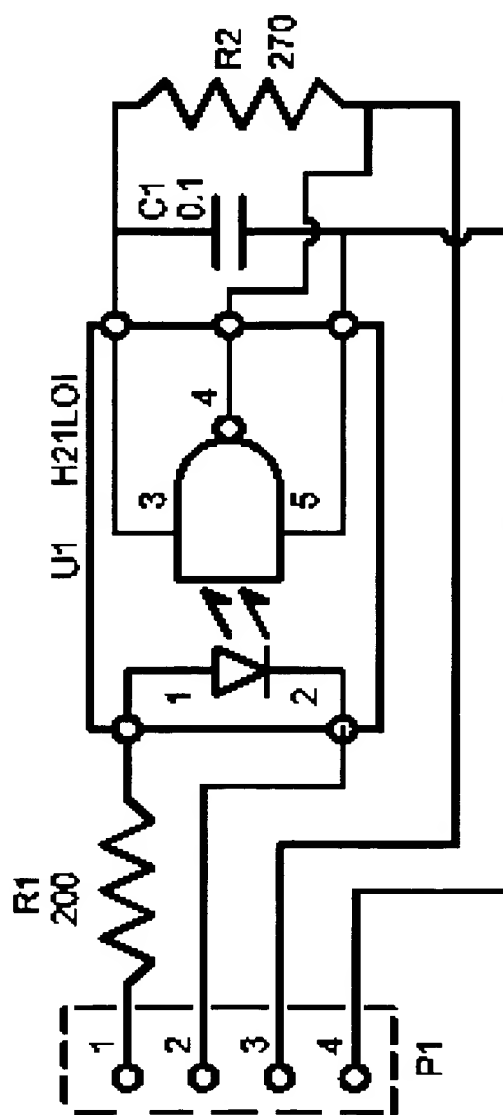


FIG. 33

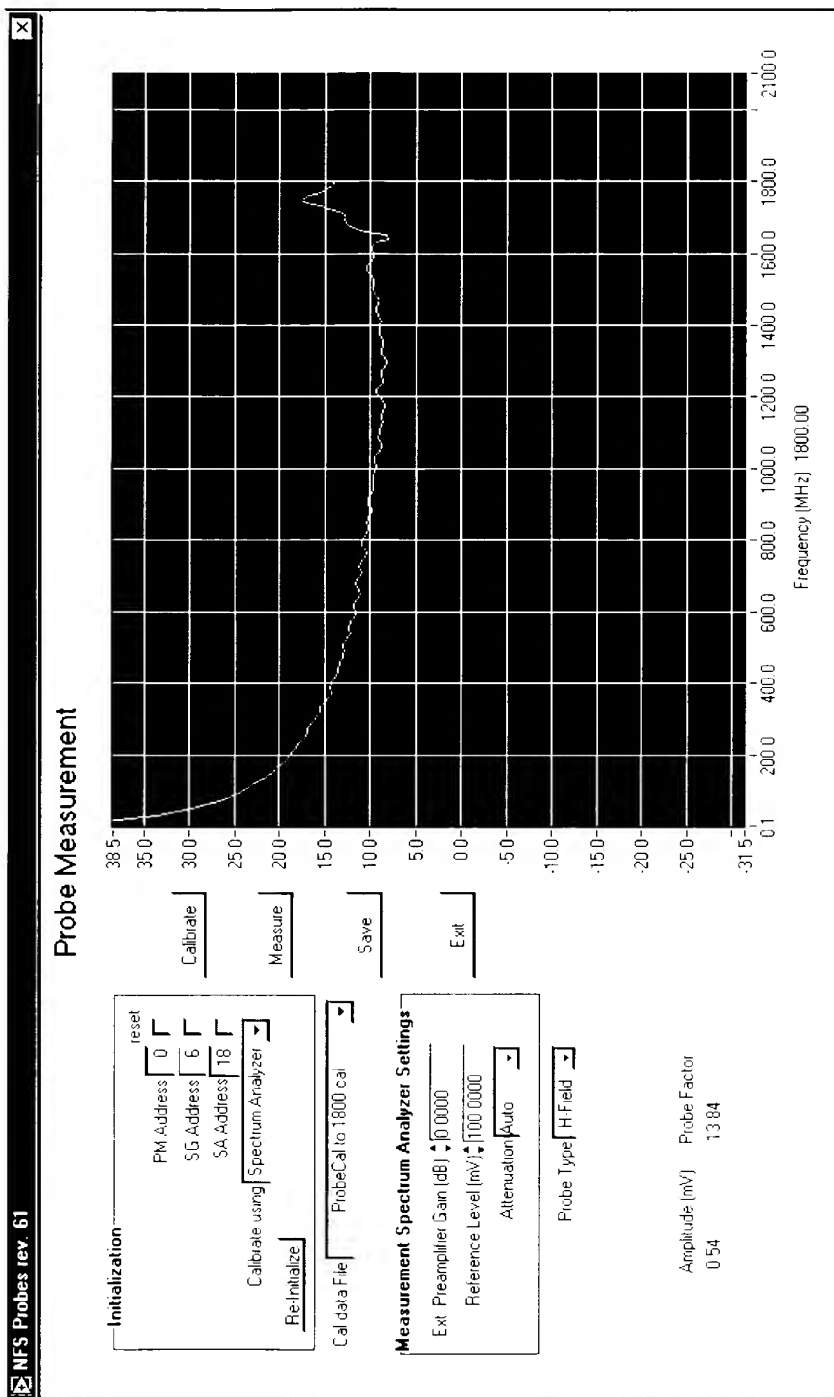


FIG. 34

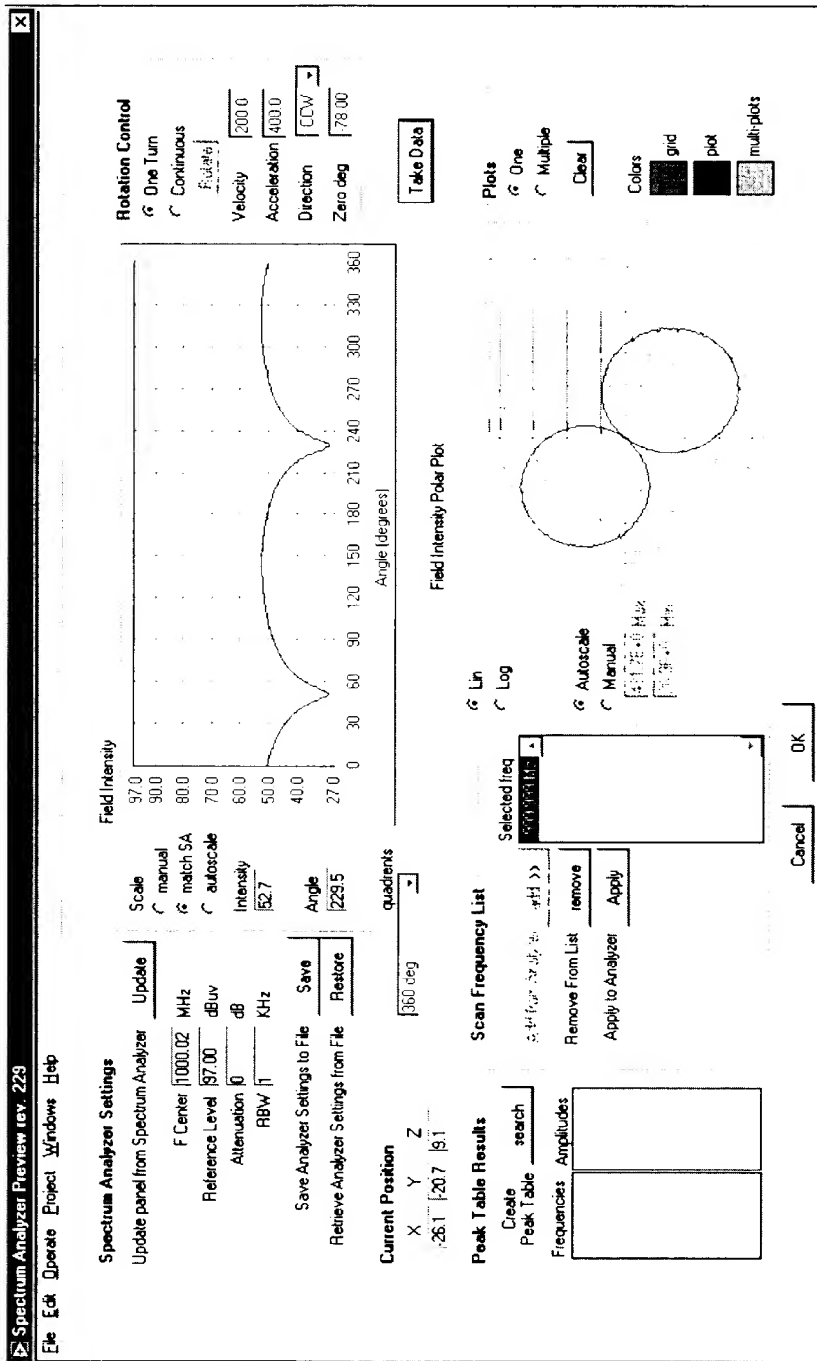
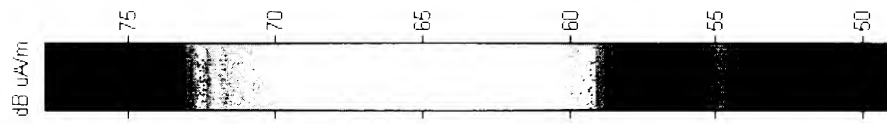


FIG. 35



Current distribution on a micro stripline.  
 The Micro Stripline is terminated in 50 ohms. Frequency 1000 MHz  
 Probe Type: Magnetic Field. Measurement Increments: dx: 1.97 mm, dy: 1.94 mm, dz: 0 mm  
 Number of Planes: 1, at 14.37 mm above DUT. Magnetic Field Intensity Unit: dB uA/m

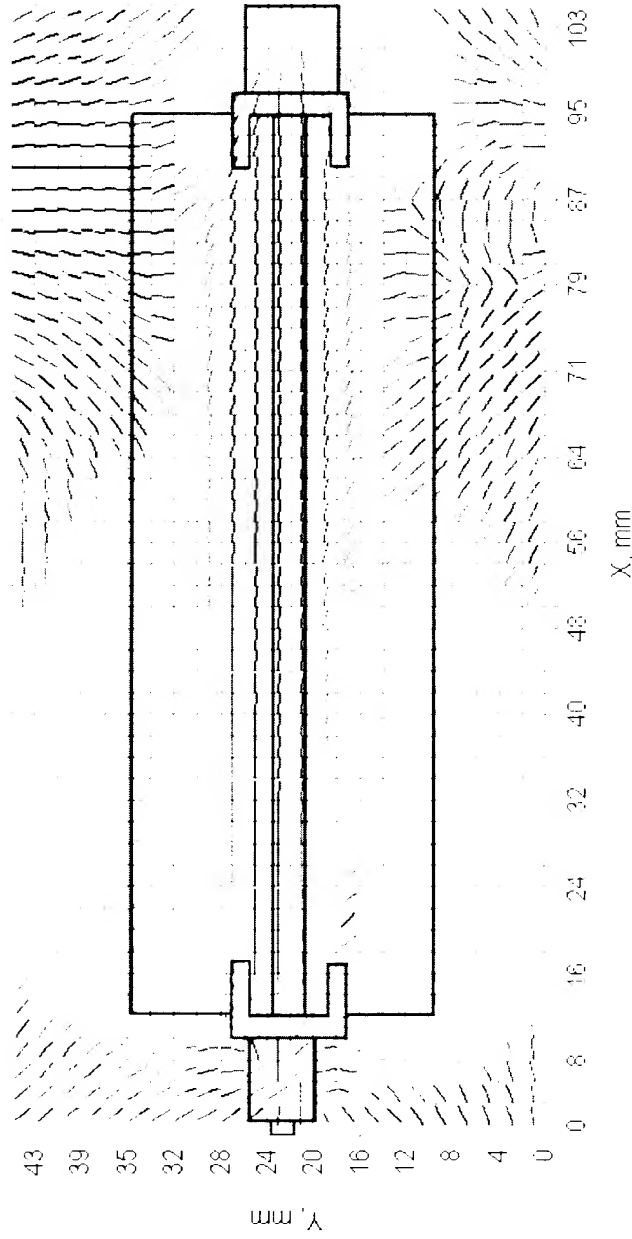


FIG. 36

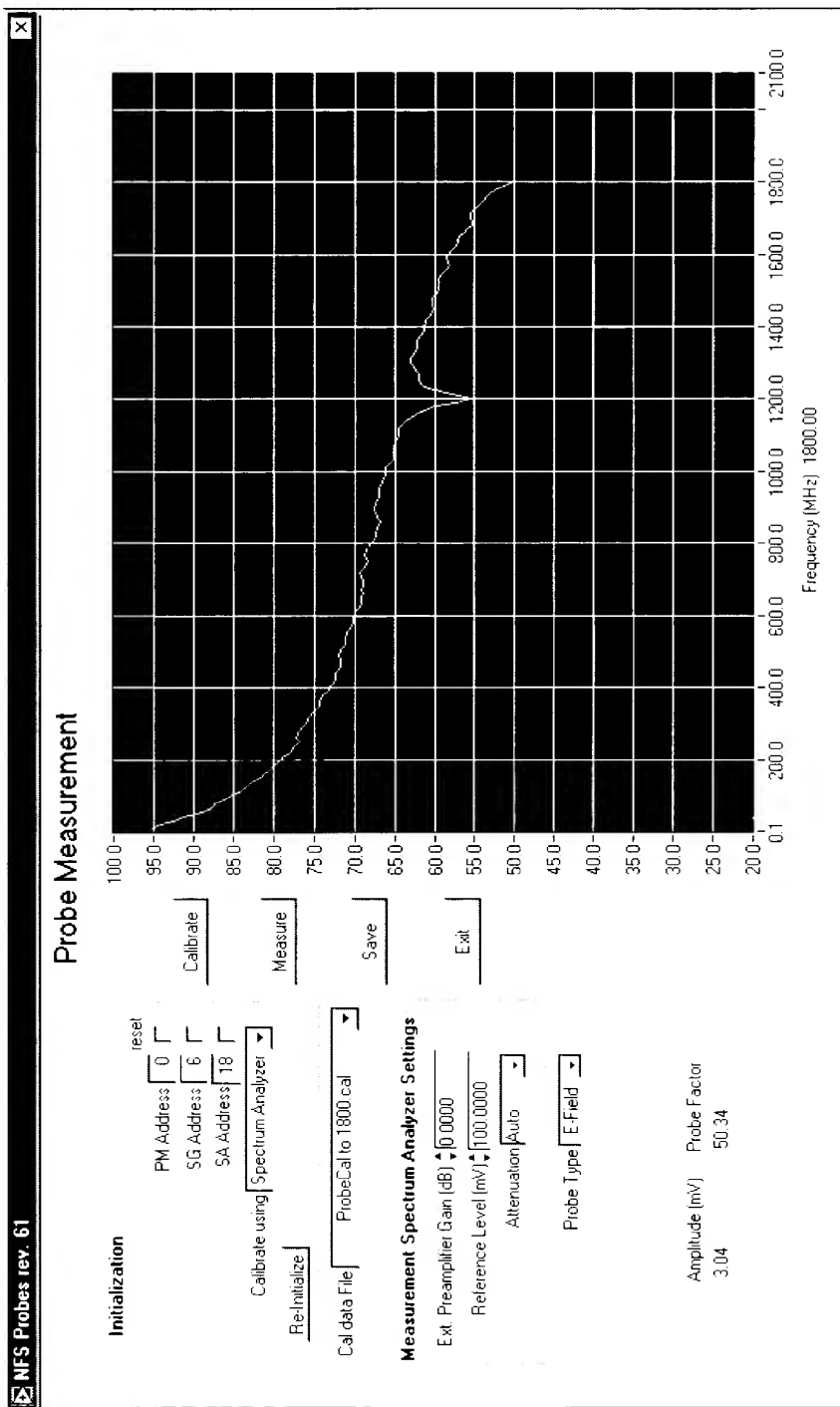


FIG. 37

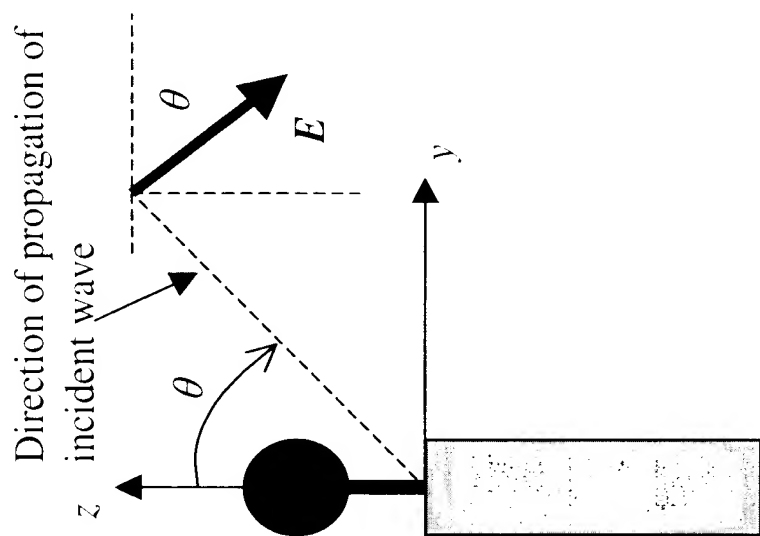


FIG. 38

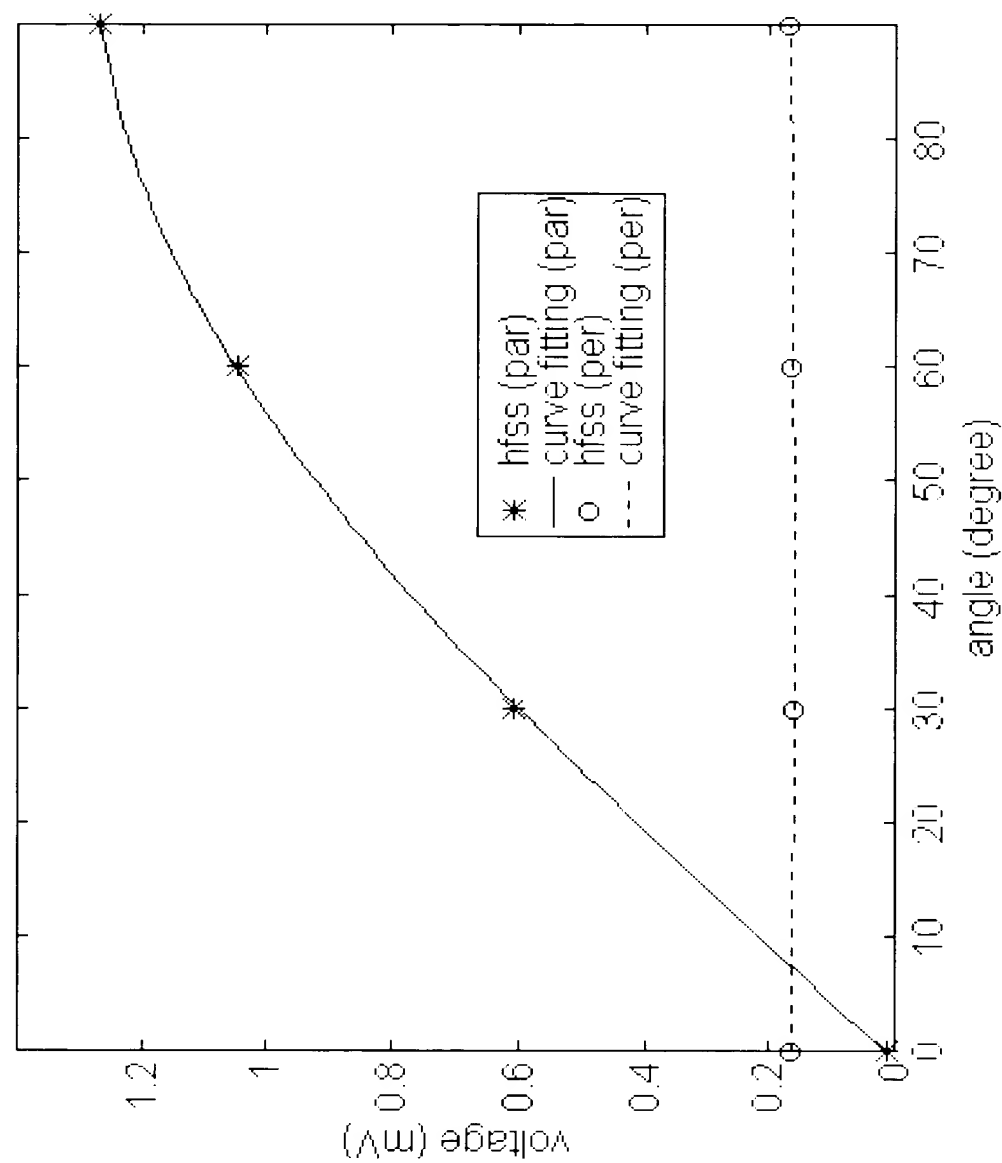


FIG. 39

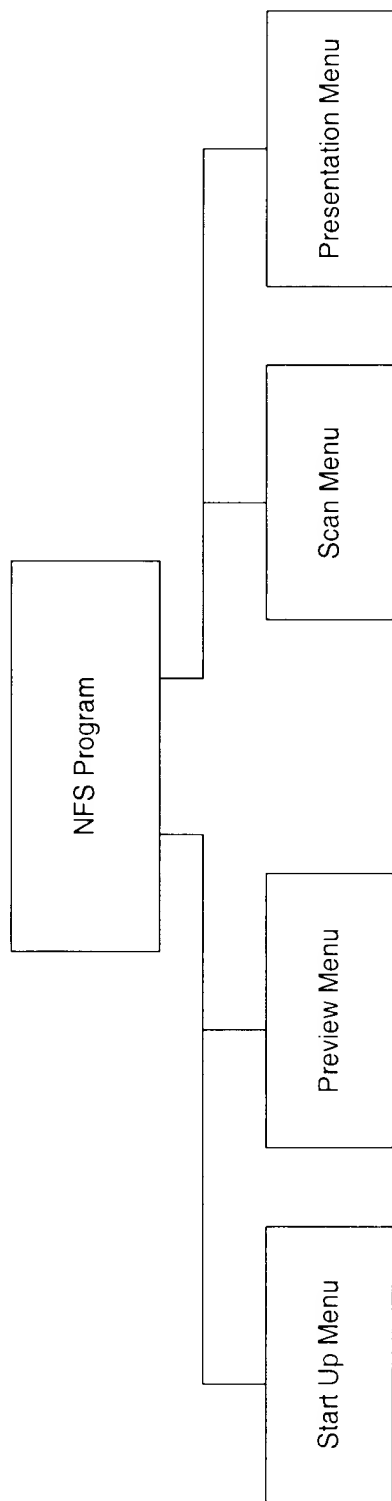


FIG. 40

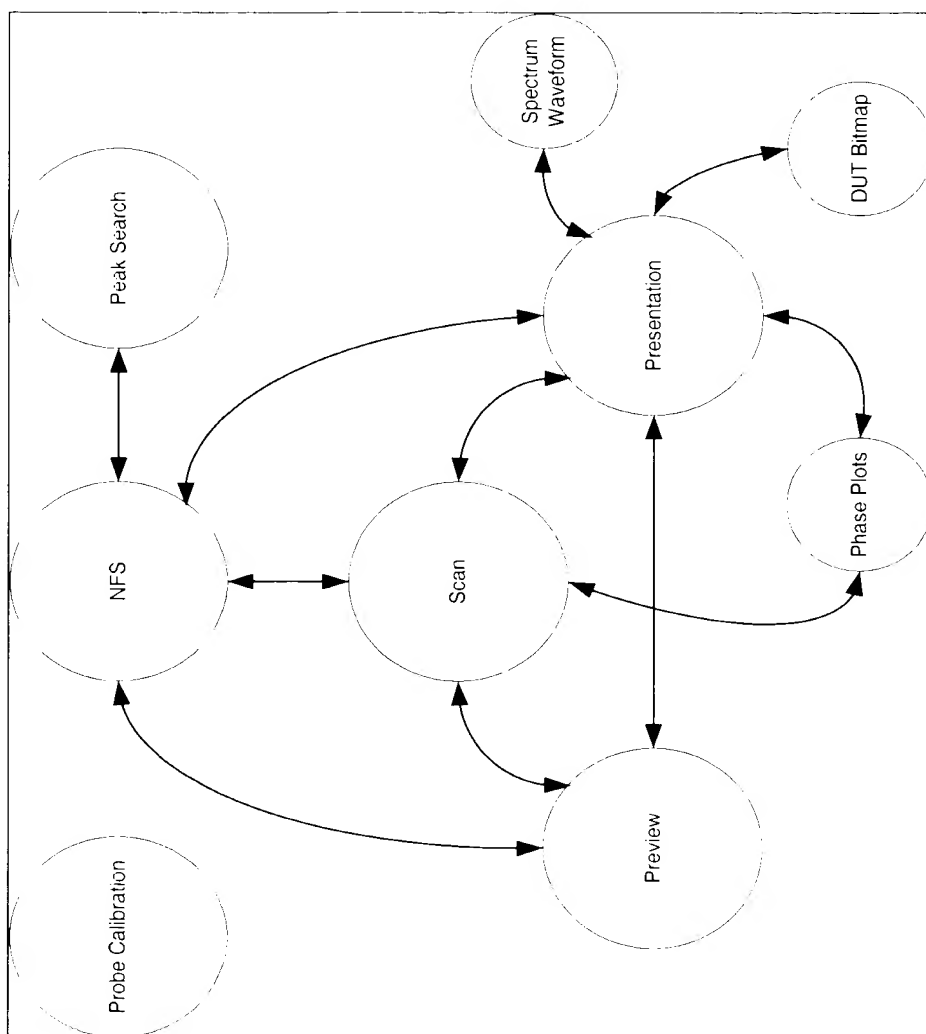


FIG. 41

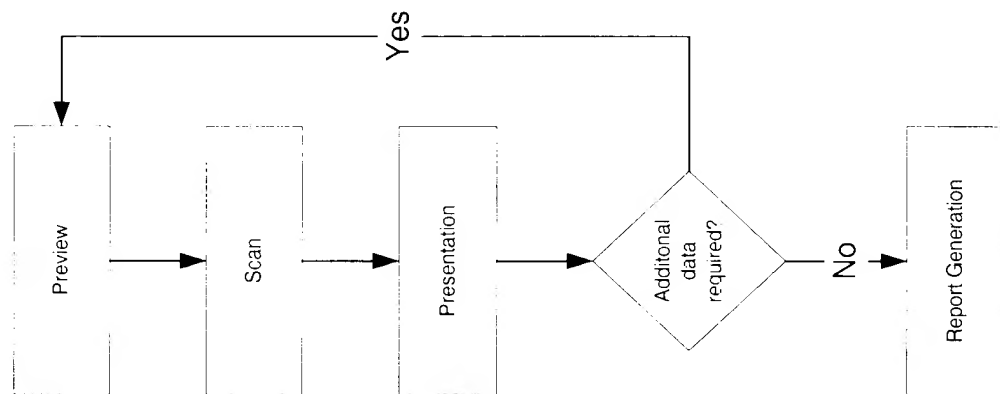


FIG. 42

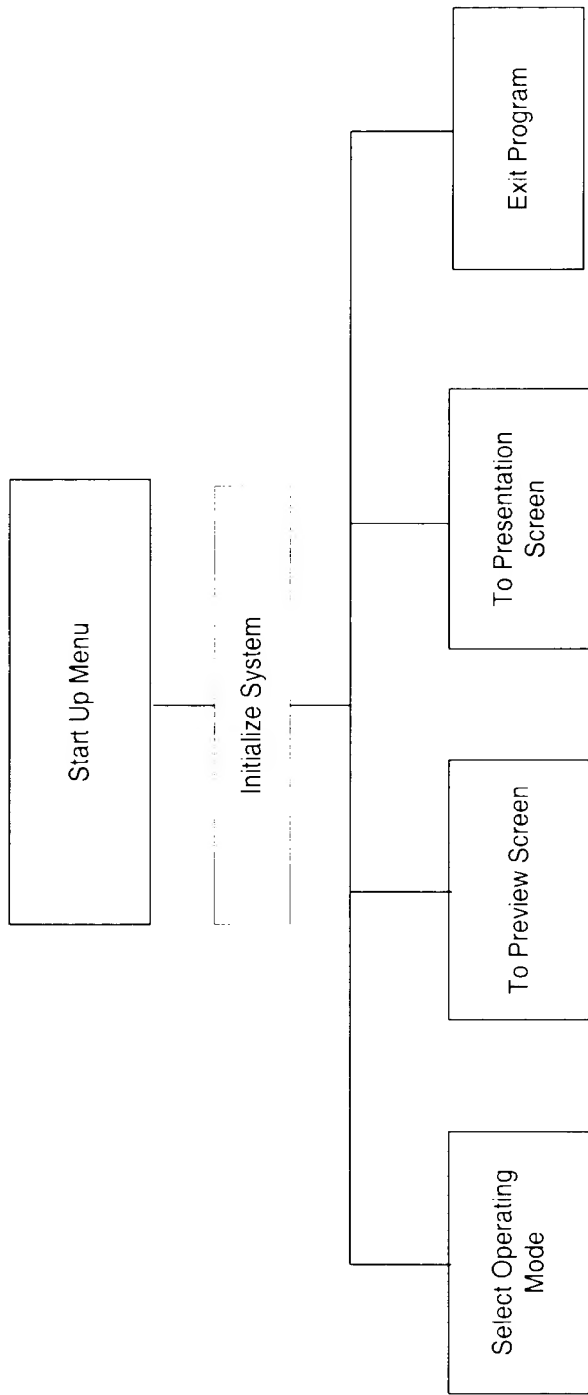


FIG. 43



FIG. 44

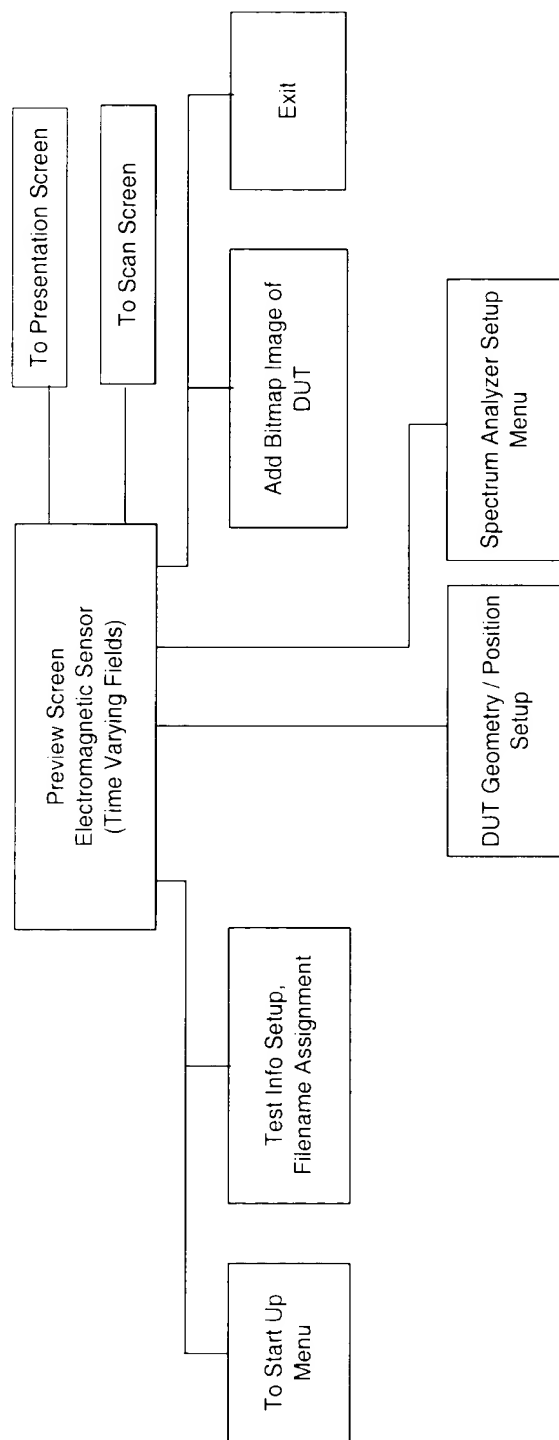
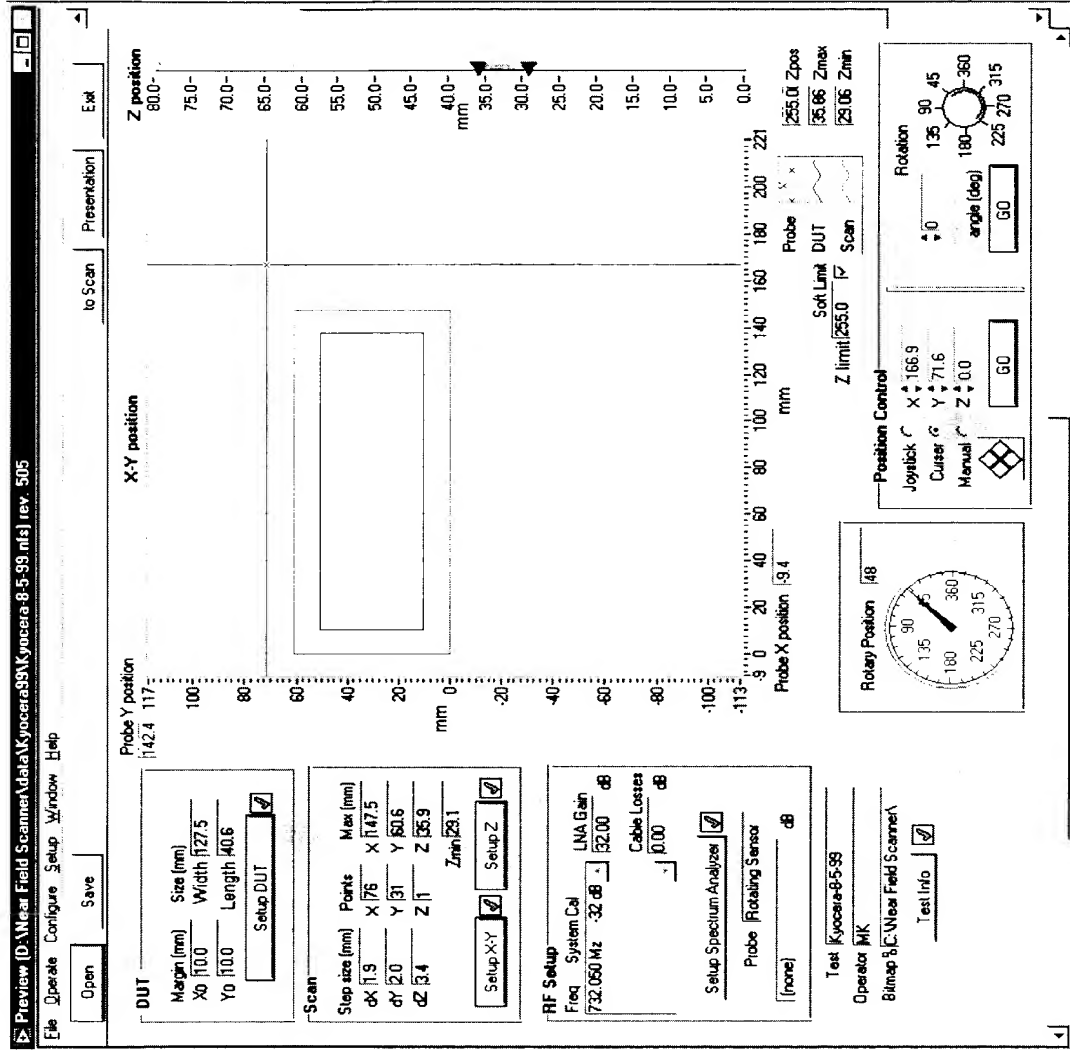


FIG. 45

FIG. 46



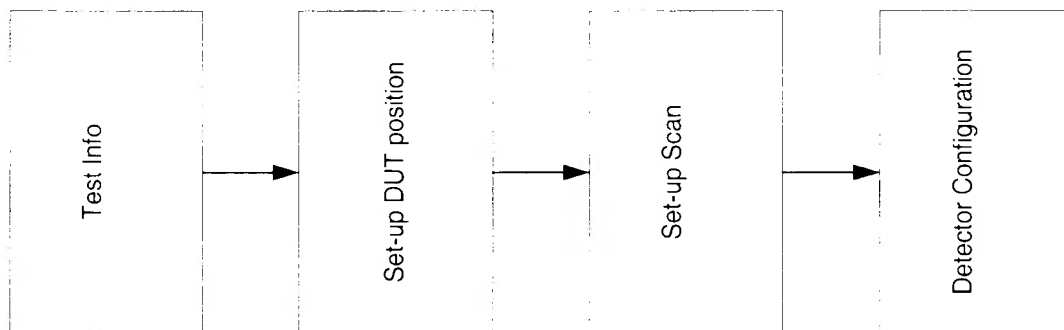


FIG. 47

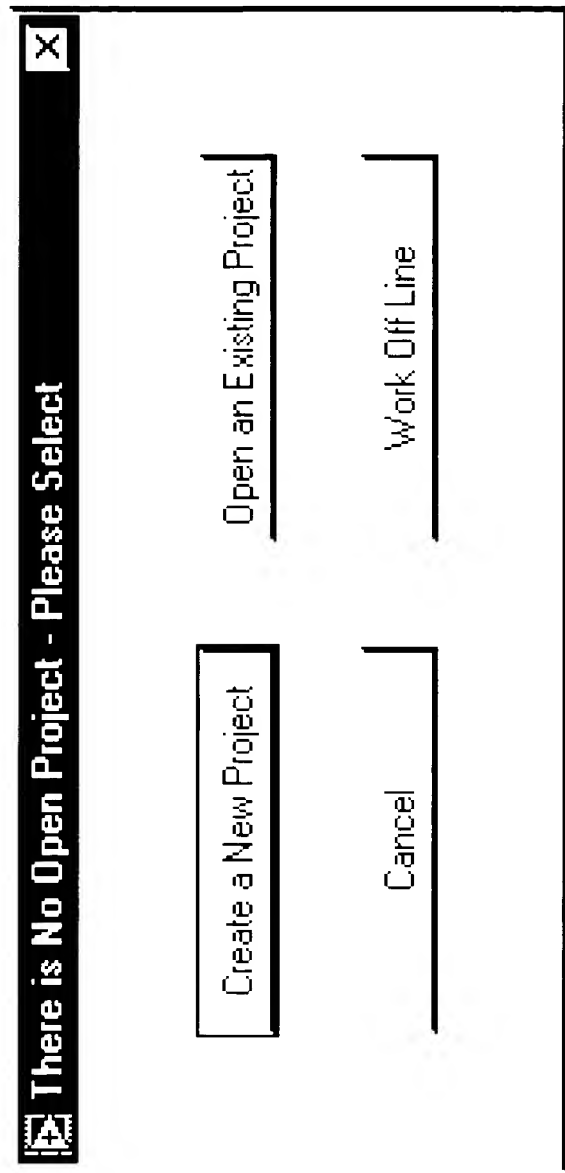


FIG. 48

Edit Probe Transfer Factor rev. 15

Probe Name

Ball-2

Units

dB uV/m

Probe correction equation

$$CF = 101.334846 - (0.19858186 * f) + (0.00048578 * f^2) - (5.7022E-7 * (f^3)) + (3.0732E-10)$$

Cancel

OK

FIG. 49

FIG. 50

×

Overscan Range

Set X-Y overscan area

Left (X)

2.0

Left

----->

Top (Y)

2.0

Top

----->

DUT

----->

Right (X)

2.0

Right

----->

Bottom (Y)

2.0

Bottom

----->

Link

☐

X Increment

0.2

Y Increment

0.2

Link Incr

☐

OK

Cancel

**Z Axes Parameters**

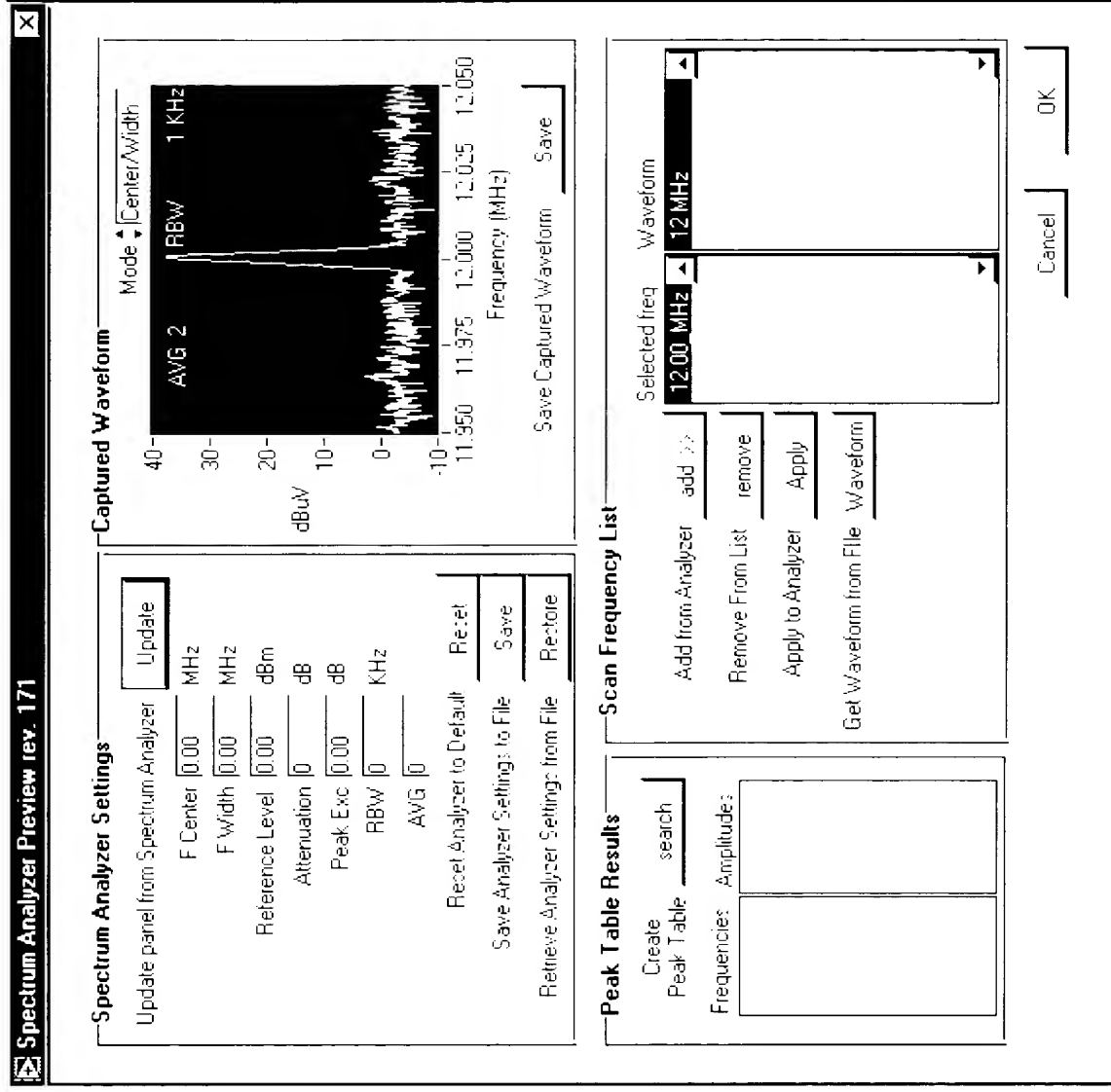
### Enter Desired Z Axes Parameters

Maximum Height above DUT (mm)  $\updownarrow$  20.00  
Minimum Height above DUT (mm)  $\updownarrow$  6.32  
Number of Planes  $\updownarrow$  3  
Offset between Limit Switch Position & DUT (mm)  $\updownarrow$  2.00 Use Limit Switch  
mm per Plane 6.84

The diagram illustrates the Z-axis parameters. It shows a horizontal line representing the 'Limit Switch' with a vertical arrow pointing up to it labeled 'Offset'. Above the limit switch, there are two horizontal bars representing 'Maximum Height' and 'Minimum Height'. The 'DUT' (Device Under Test) is shown as a rectangle below the limit switch. The 'Offset' is the distance from the limit switch to the minimum height plane. The 'Maximum Height' and 'Minimum Height' are the distances from the DUT to the respective height planes.

FIG. 51

FIG. 52



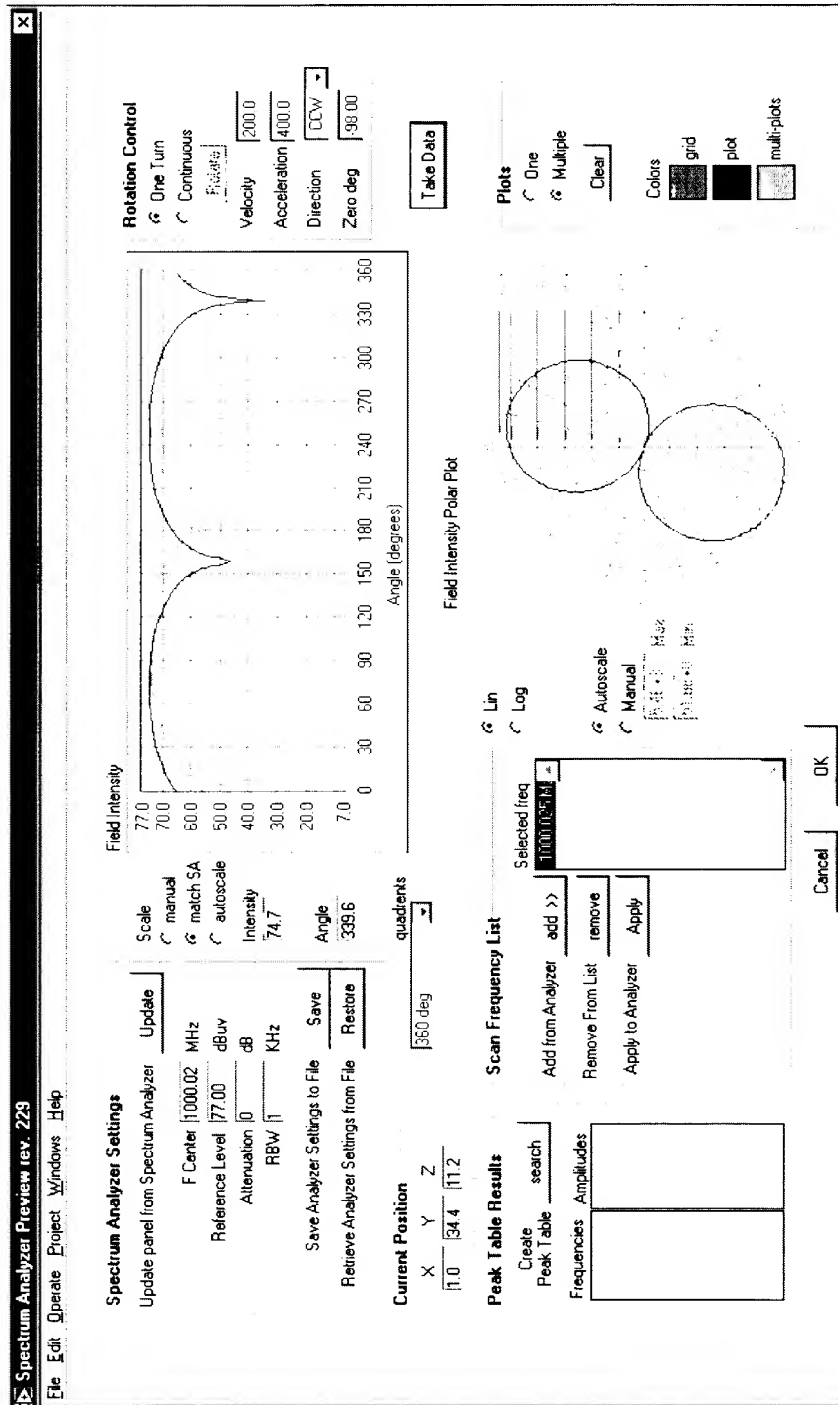


FIG. 53

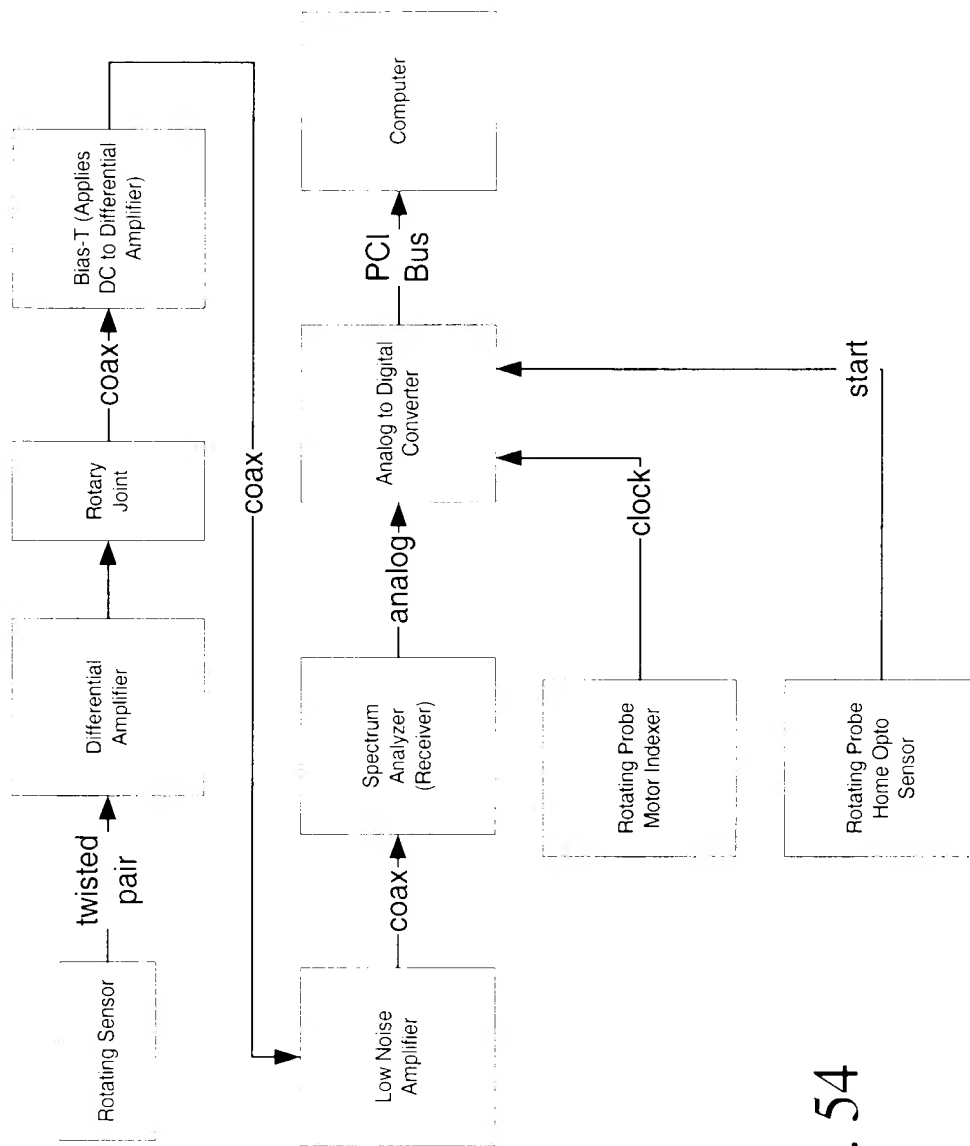


FIG. 54

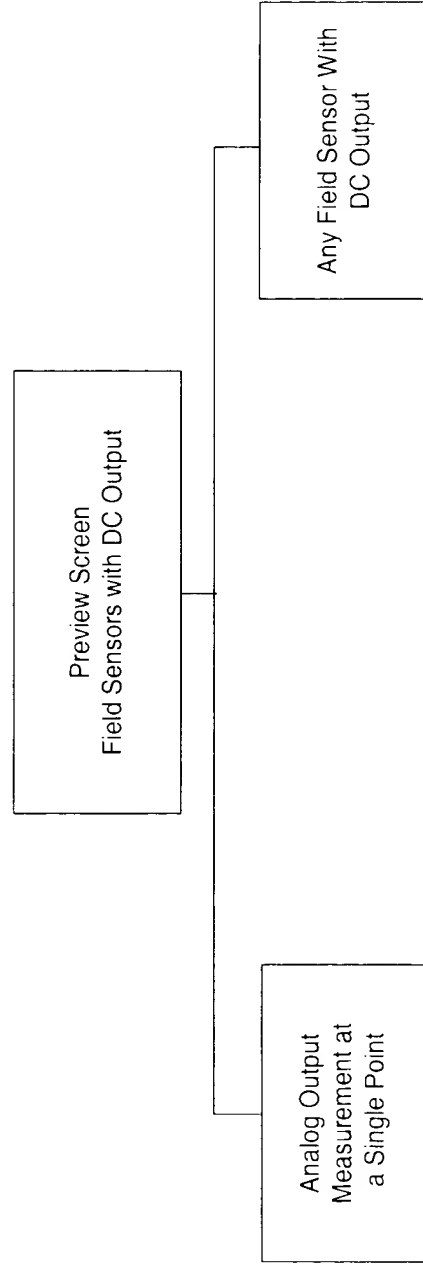


FIG. 55

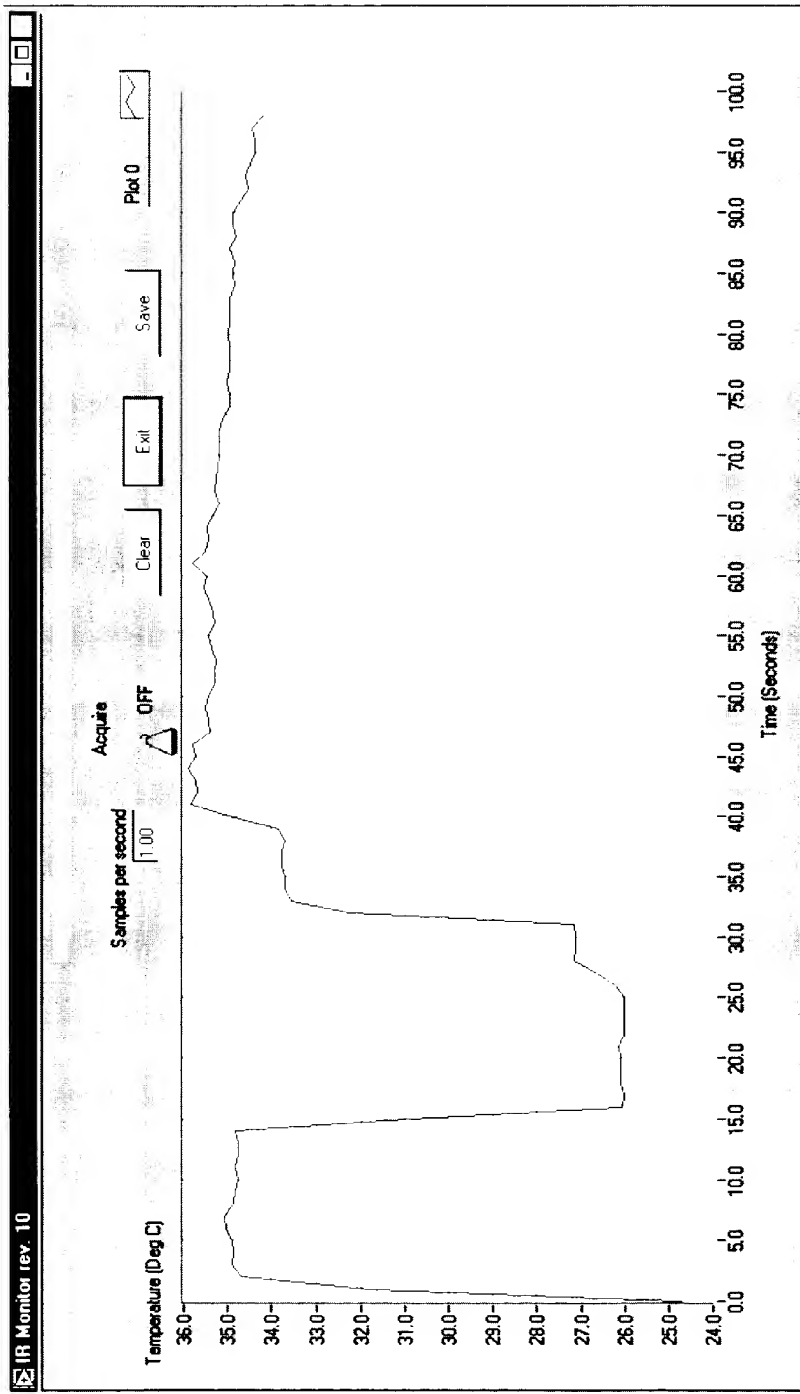
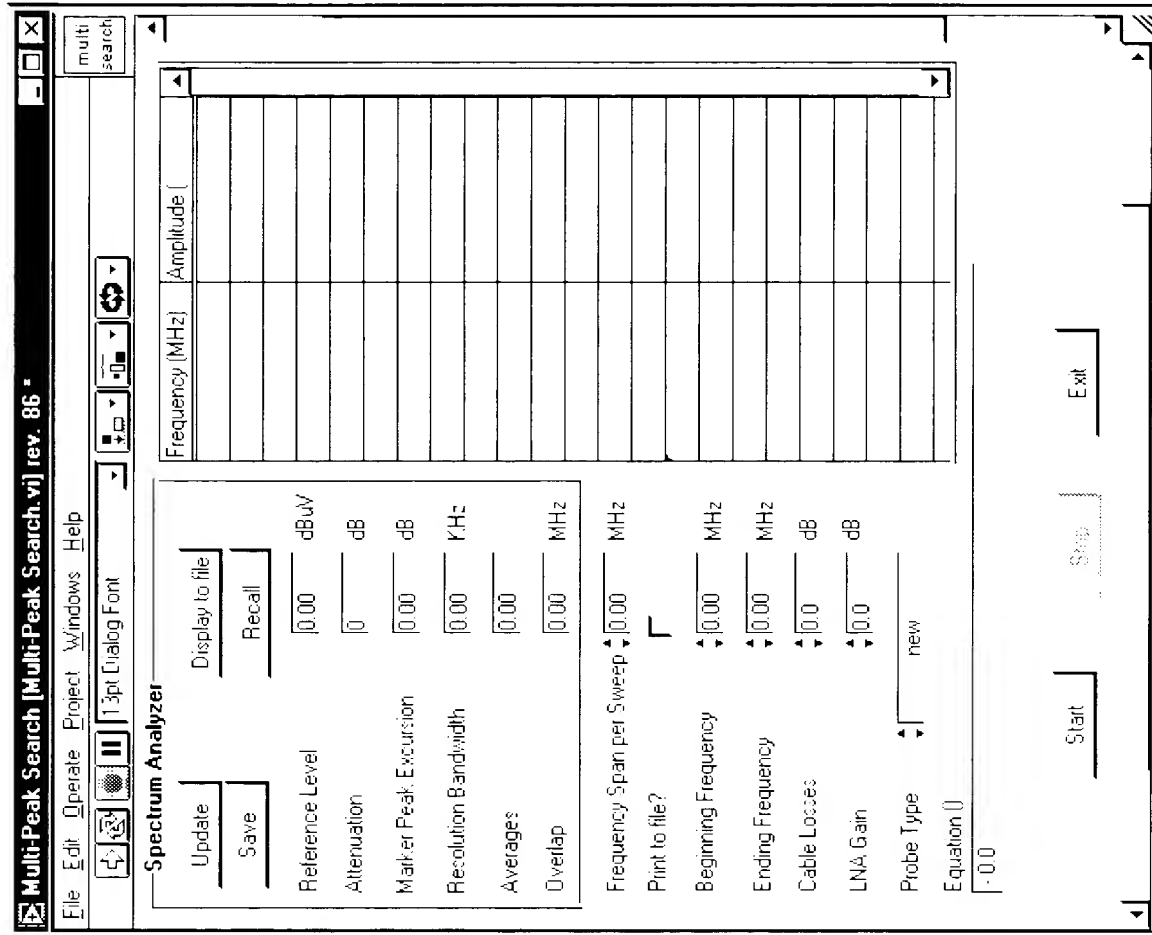


FIG. 56

FIG. 57



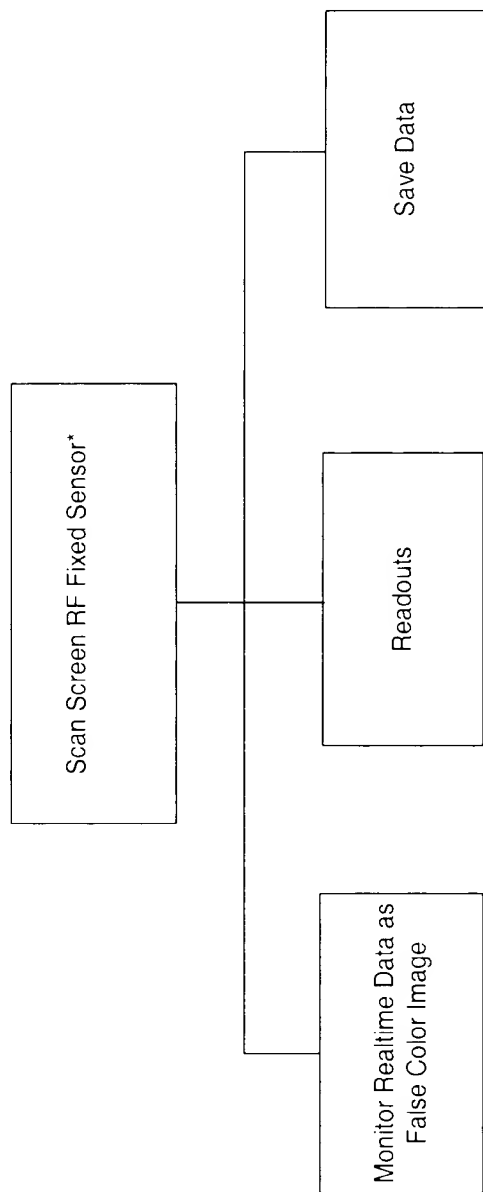


FIG. 58

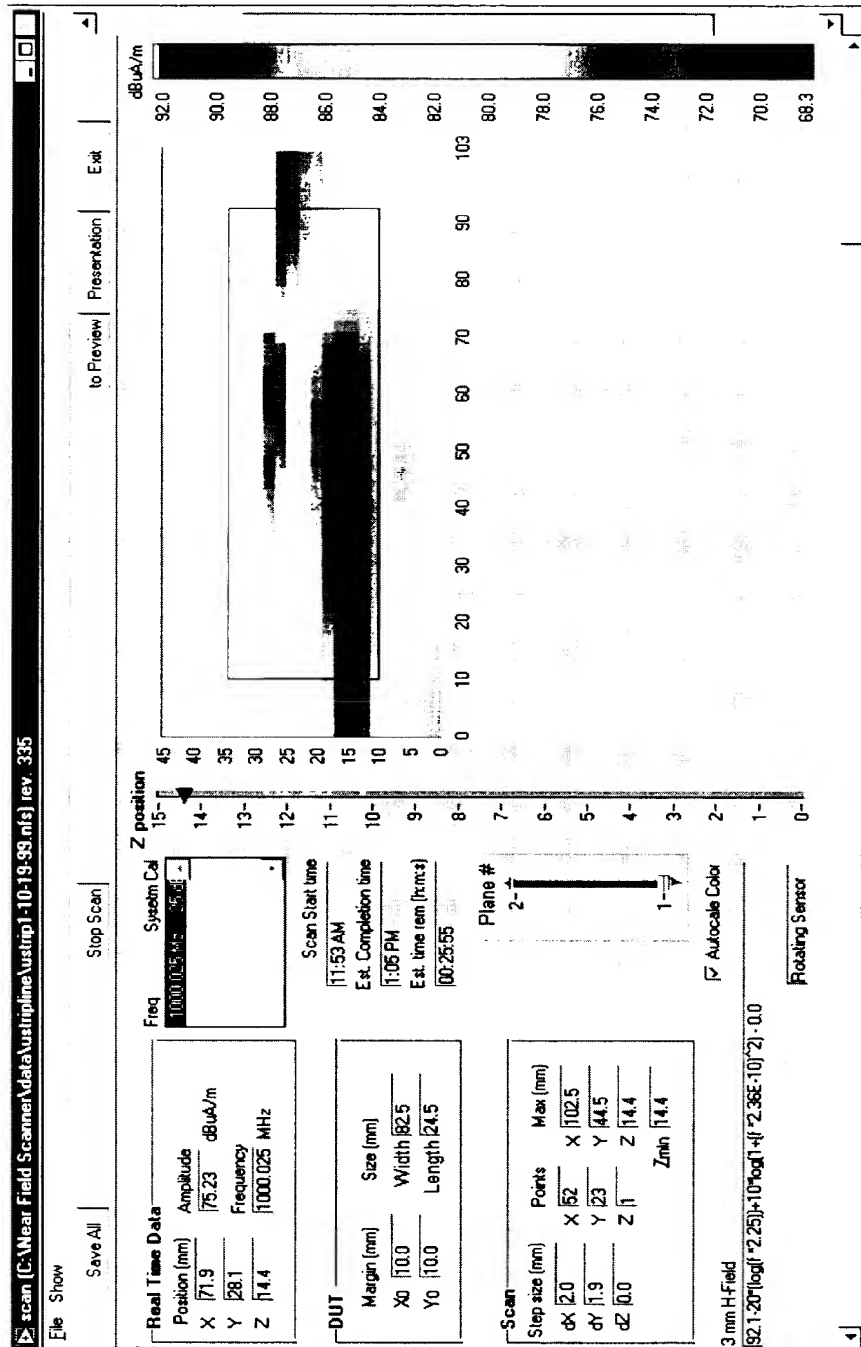
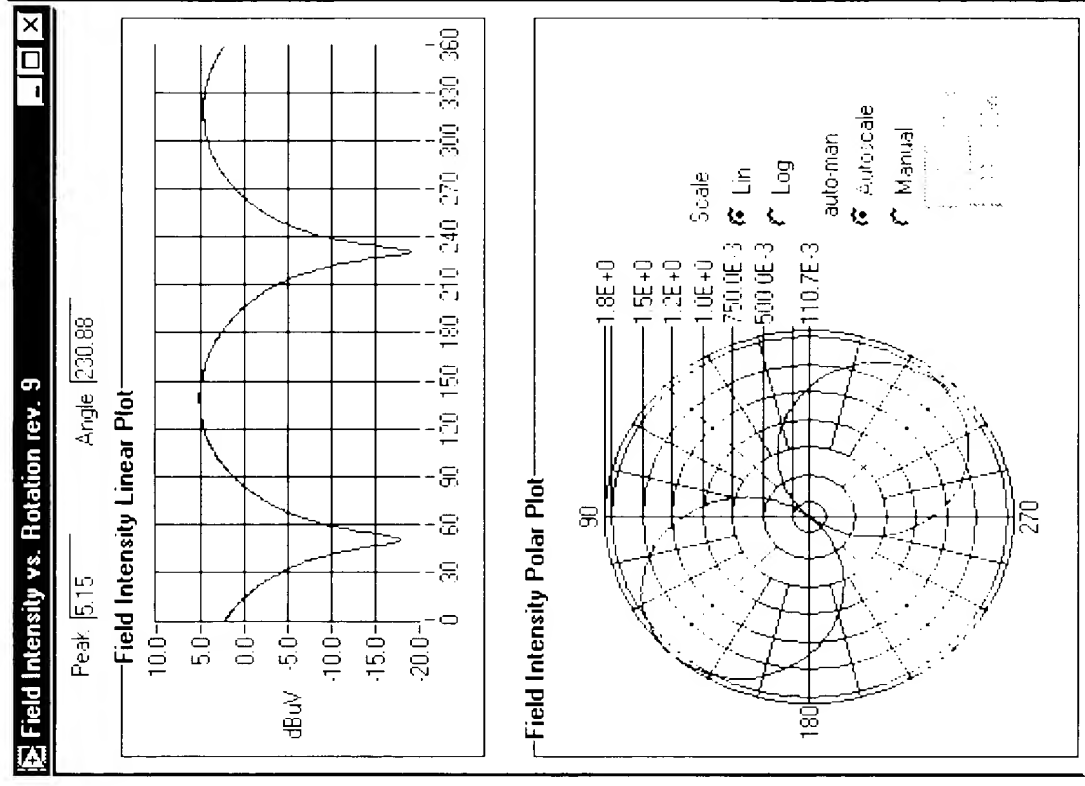


FIG. 59

FIG. 60



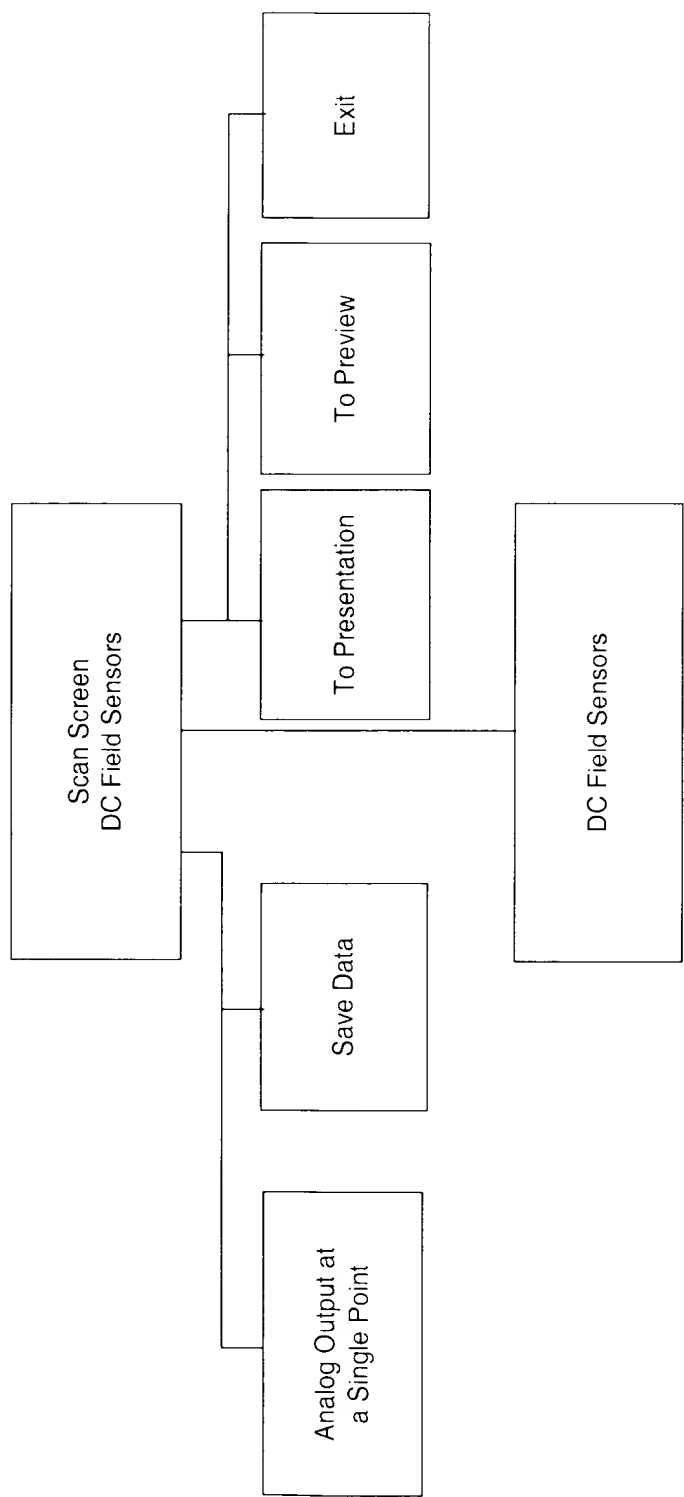


FIG. 61

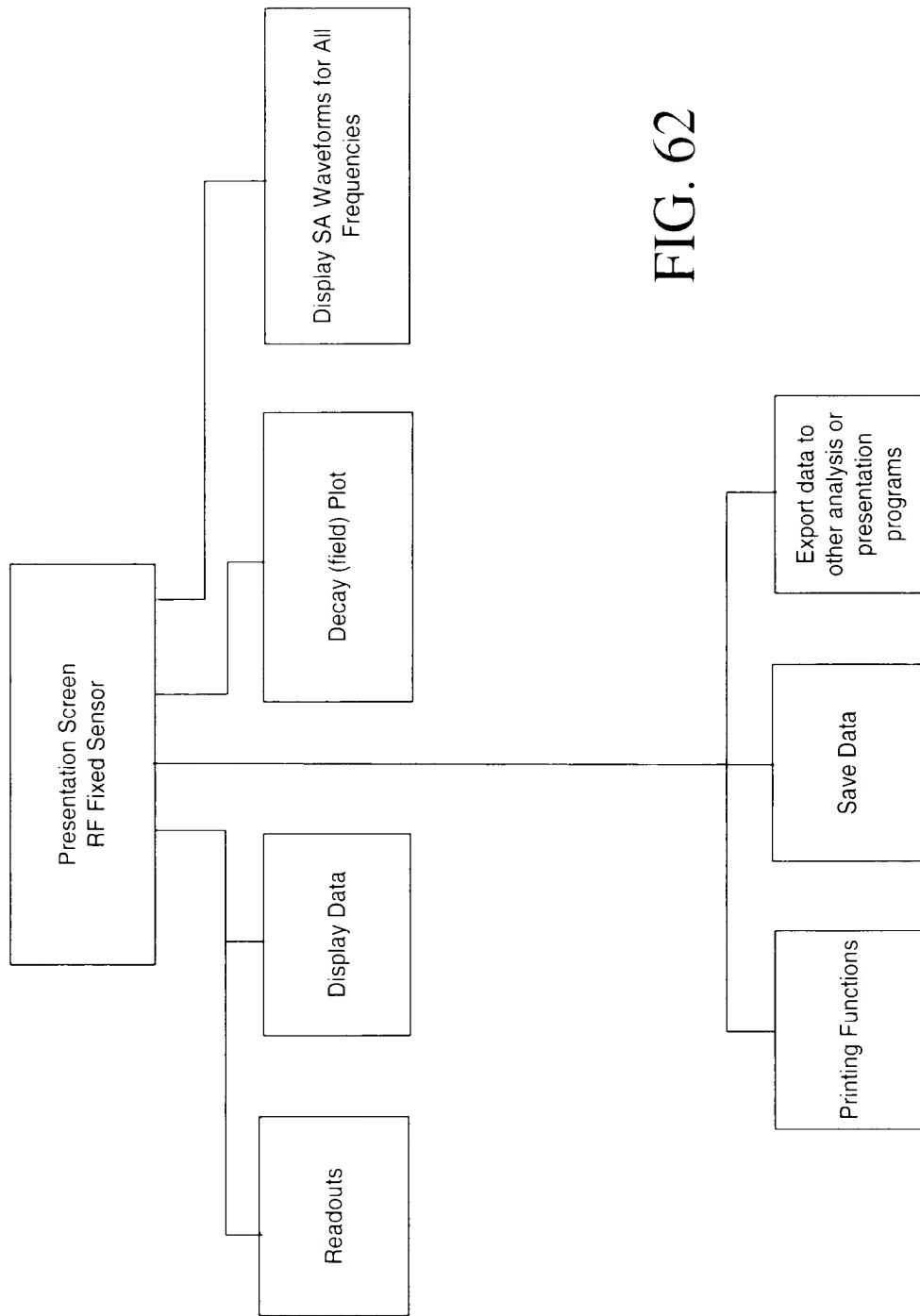


FIG. 62

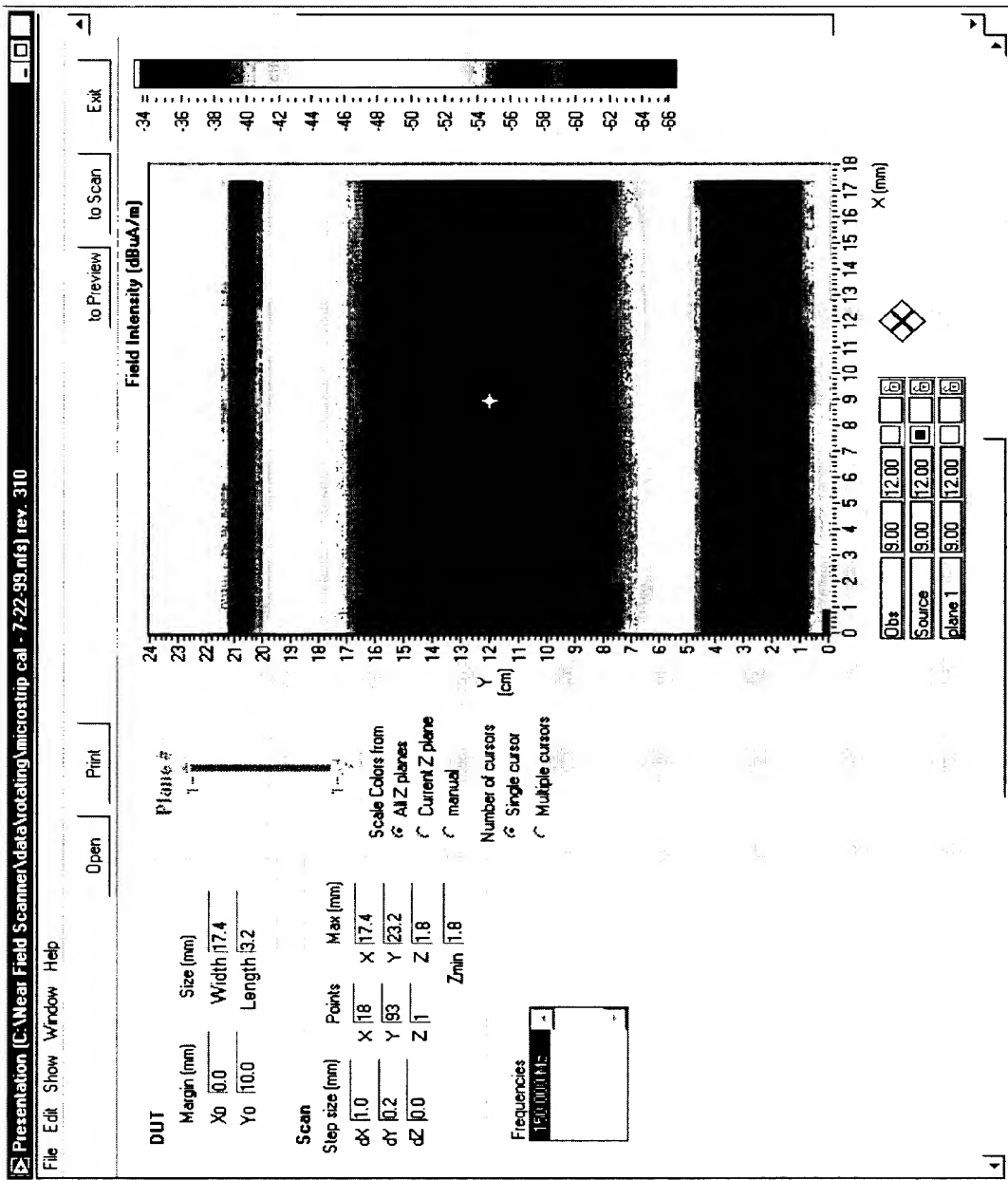
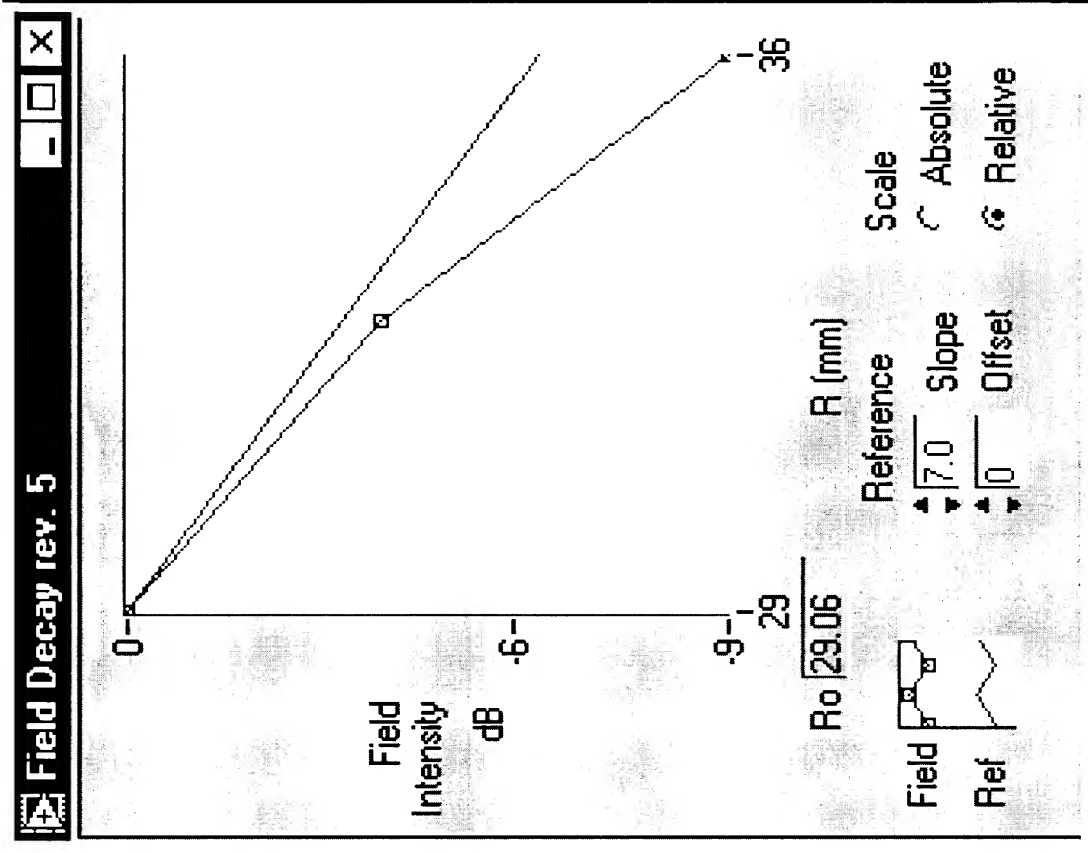


FIG. 63

FIG. 64



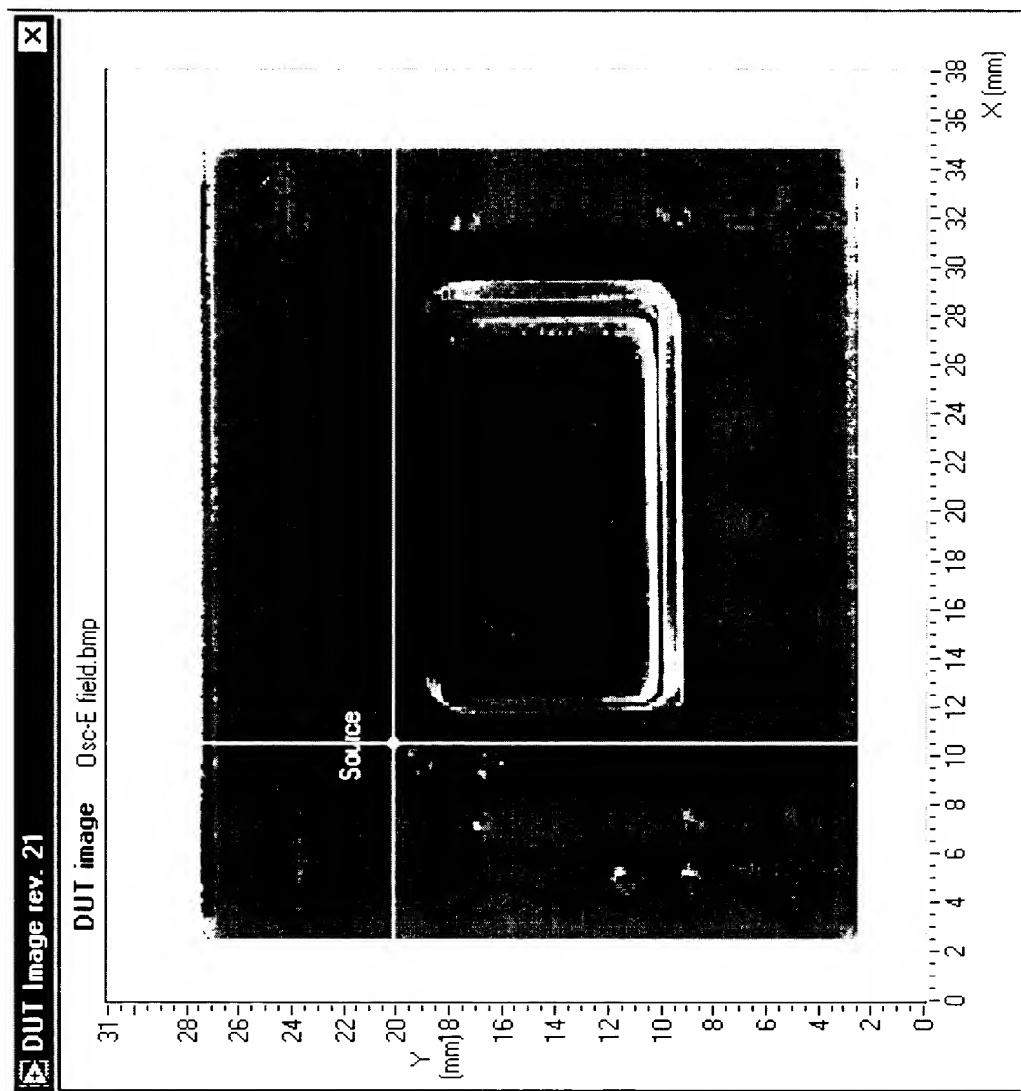
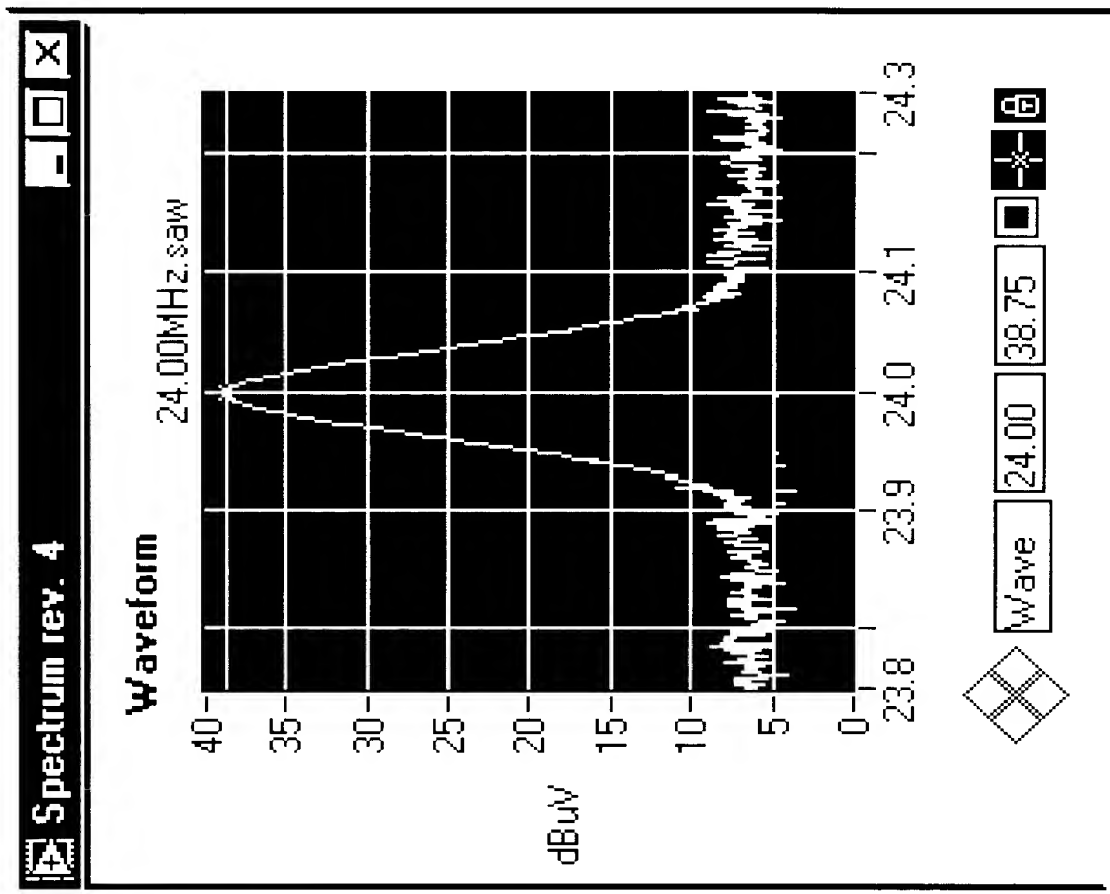


FIG. 65

FIG. 66



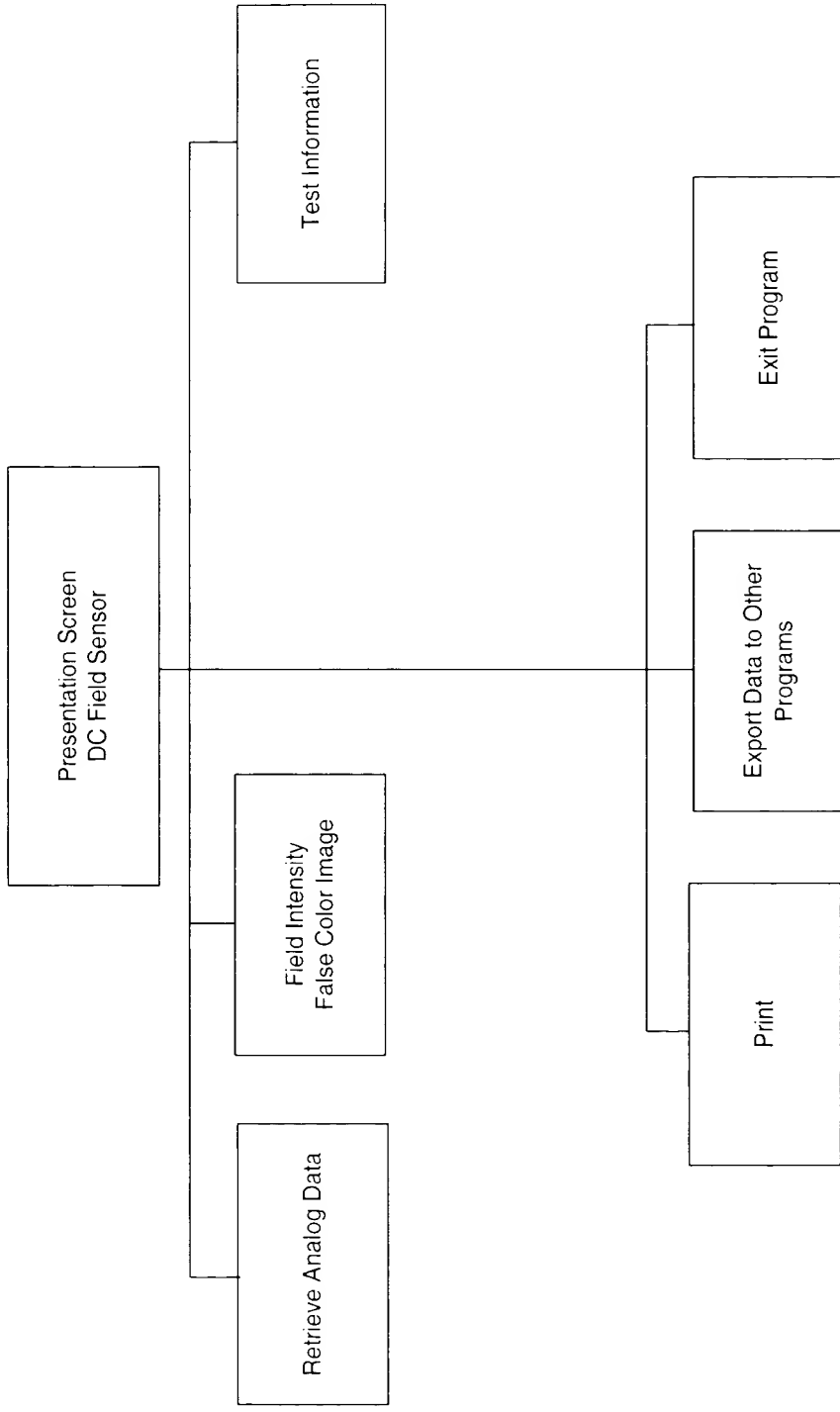


FIG. 67

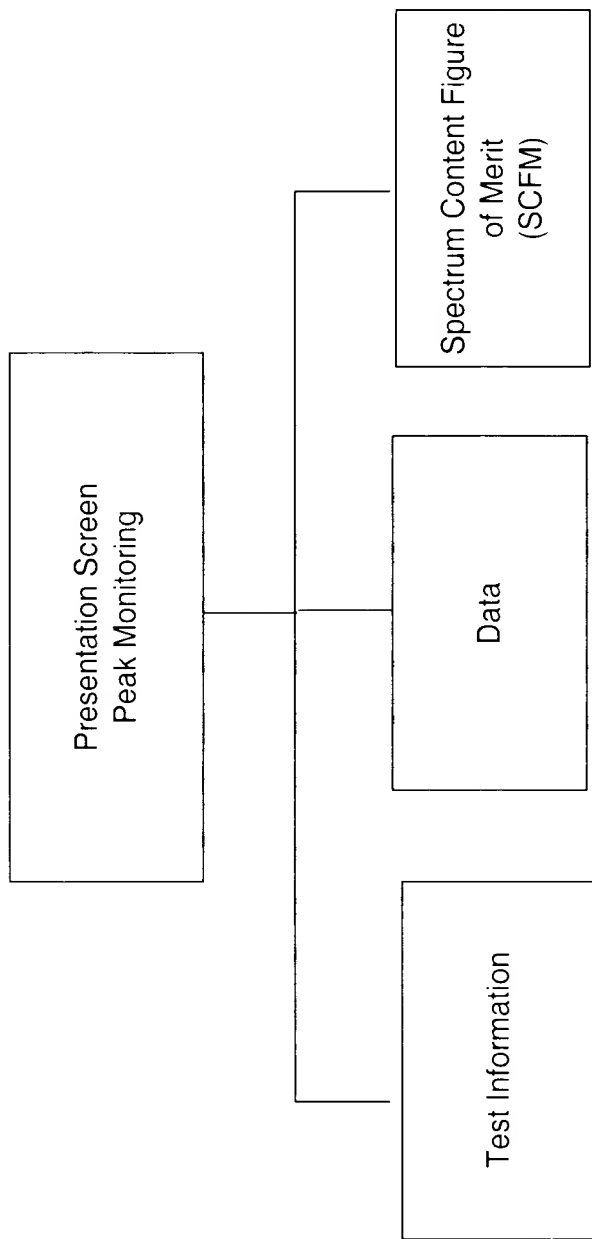


FIG. 68

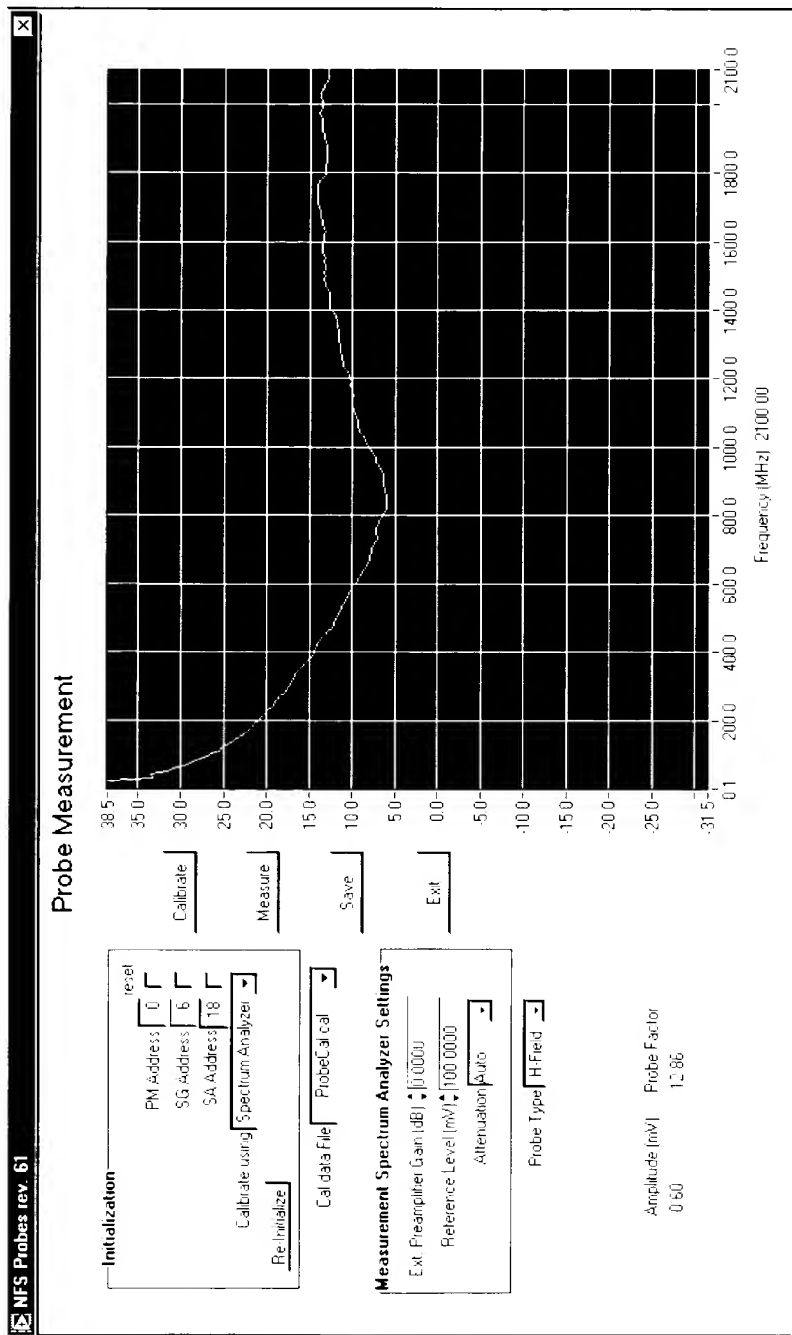


FIG. 69

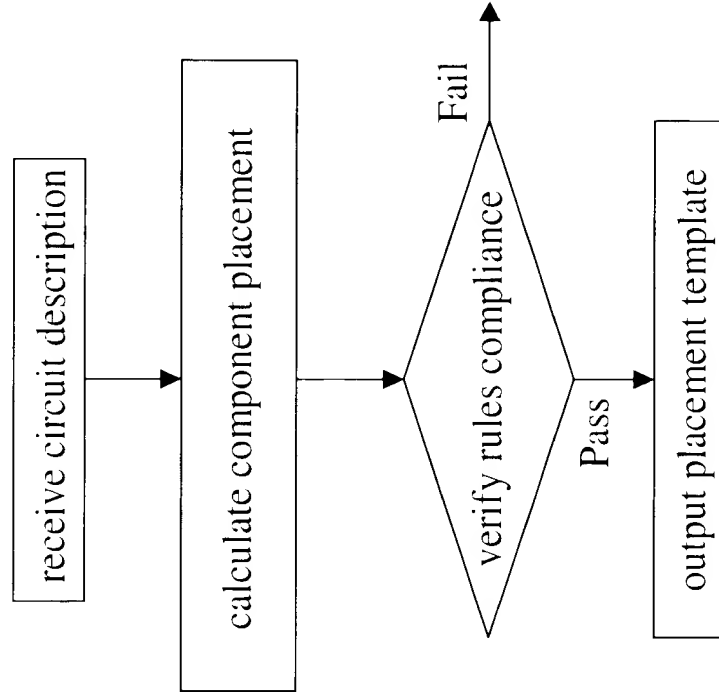


FIG. 70 (RELATED ART)

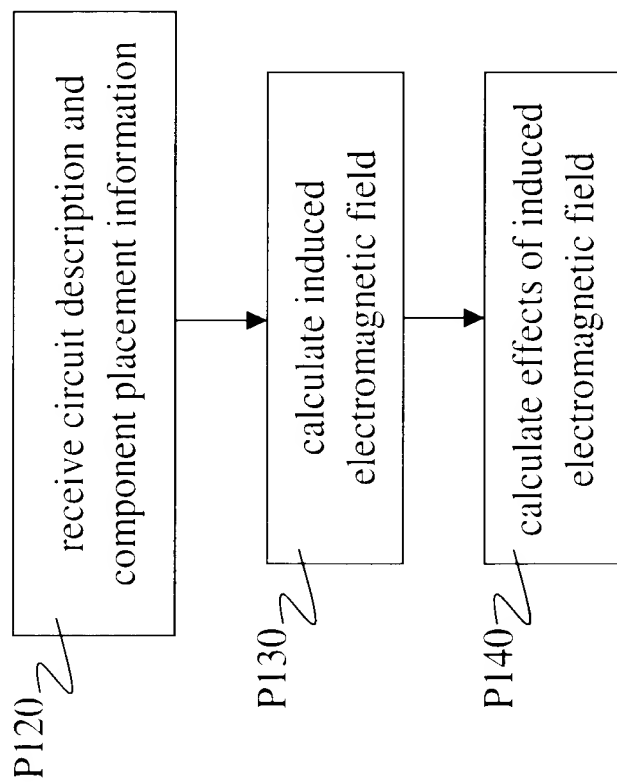


FIG. 71

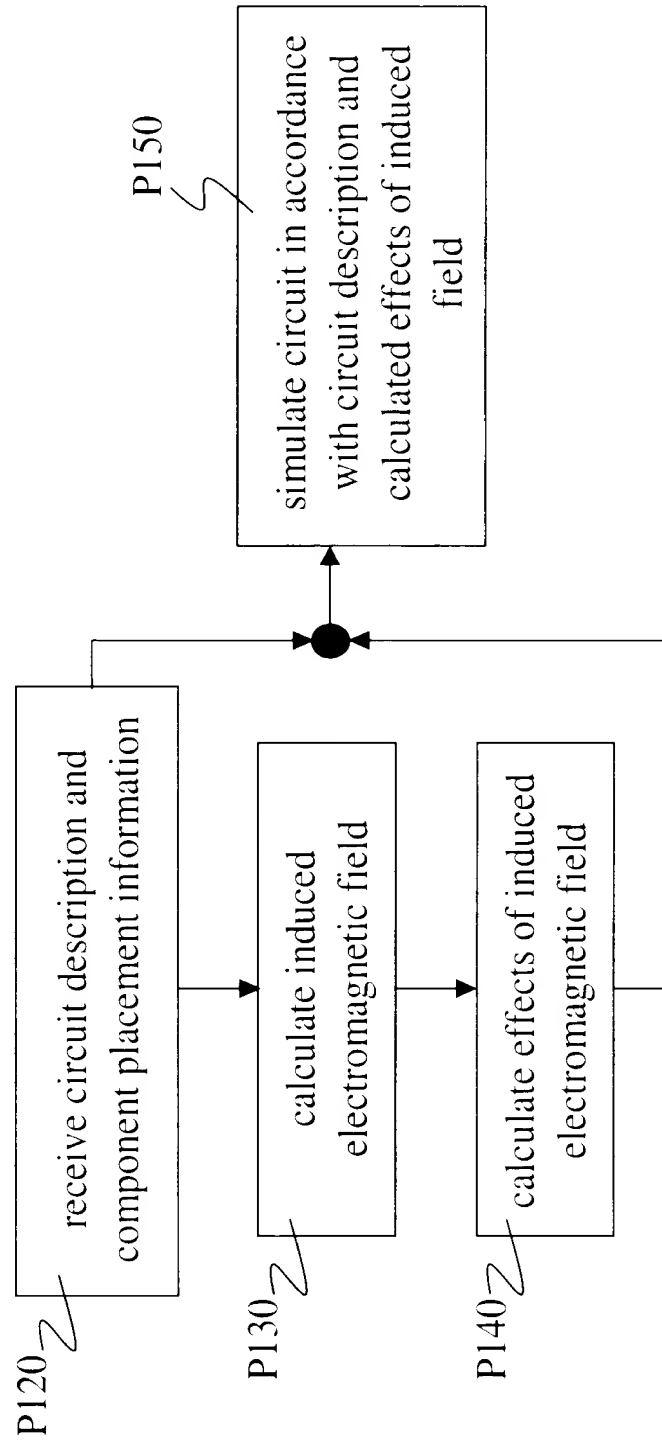


FIG. 72

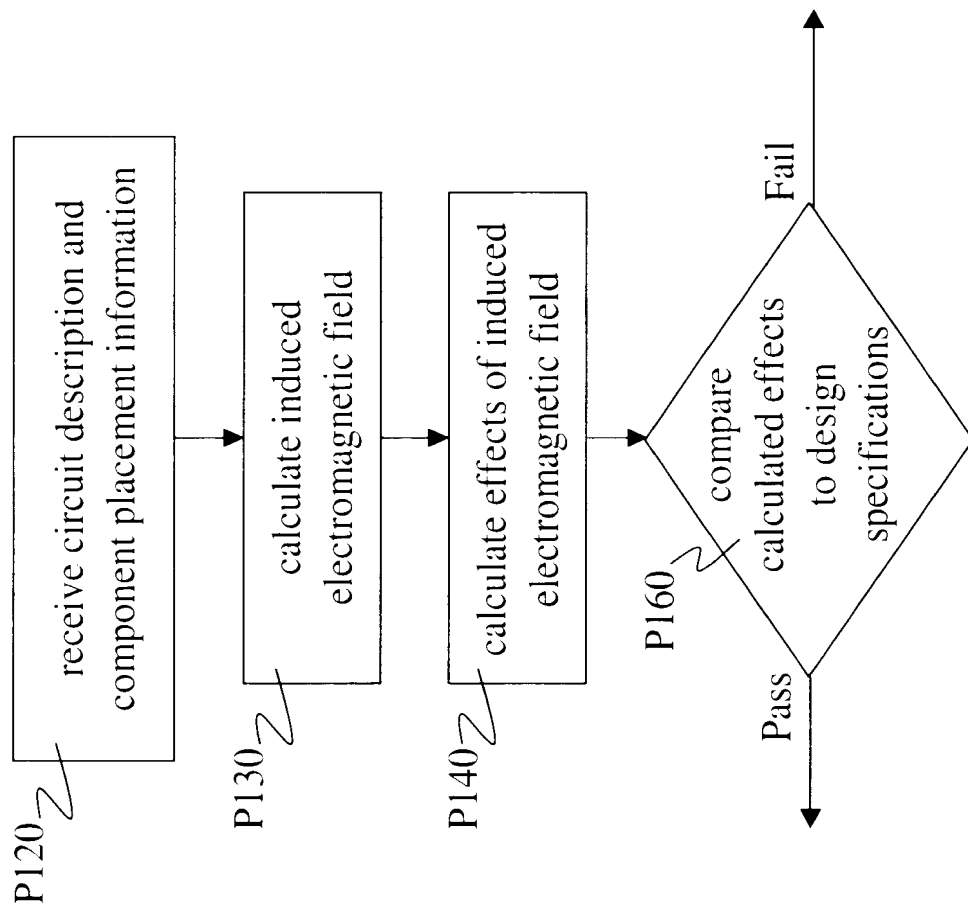


FIG. 73

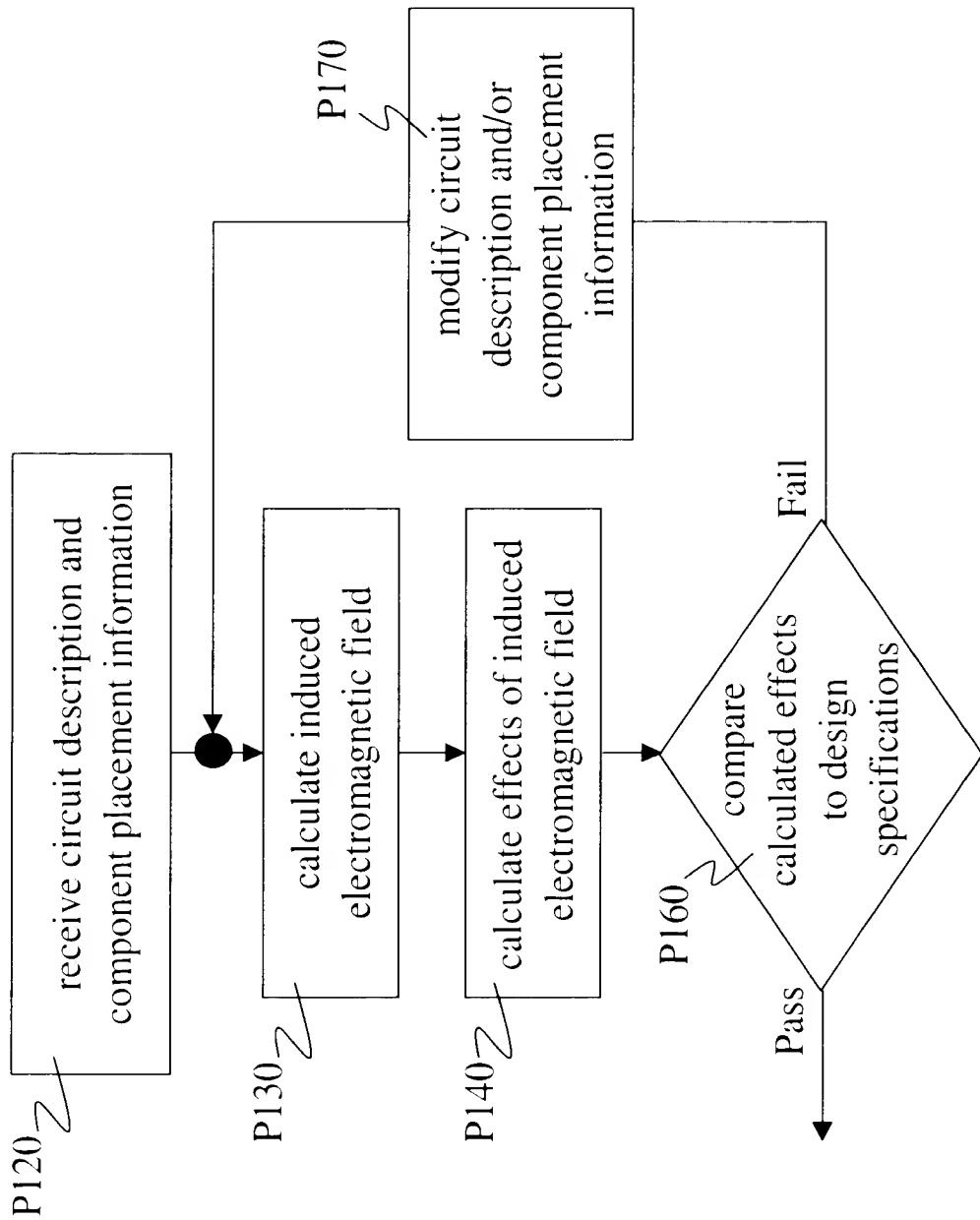


FIG. 74

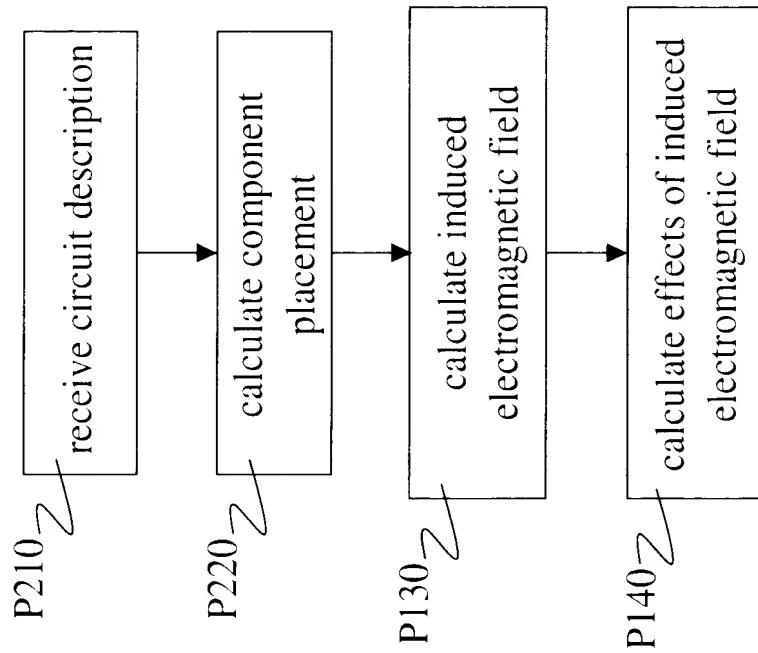


FIG. 75

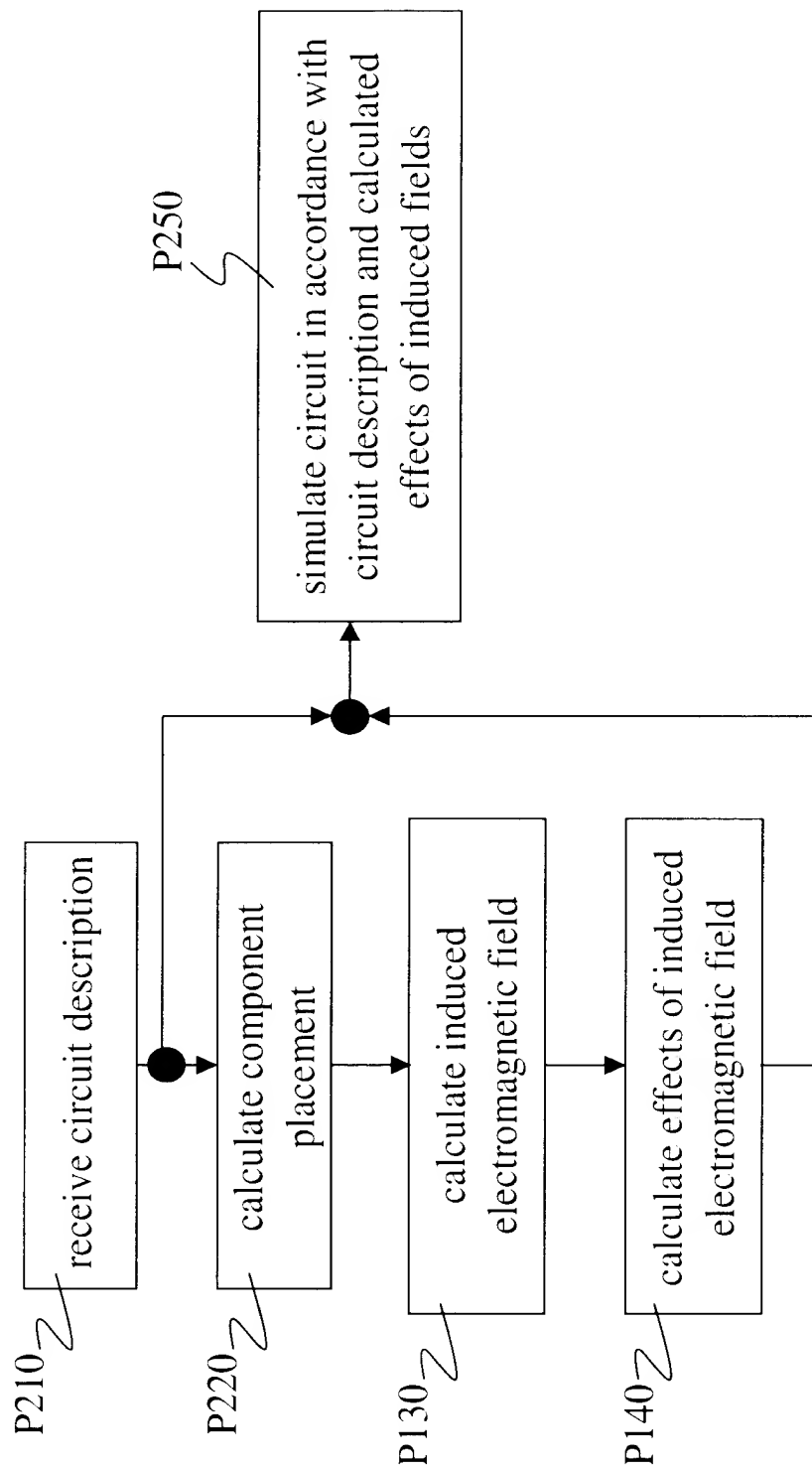


FIG. 76

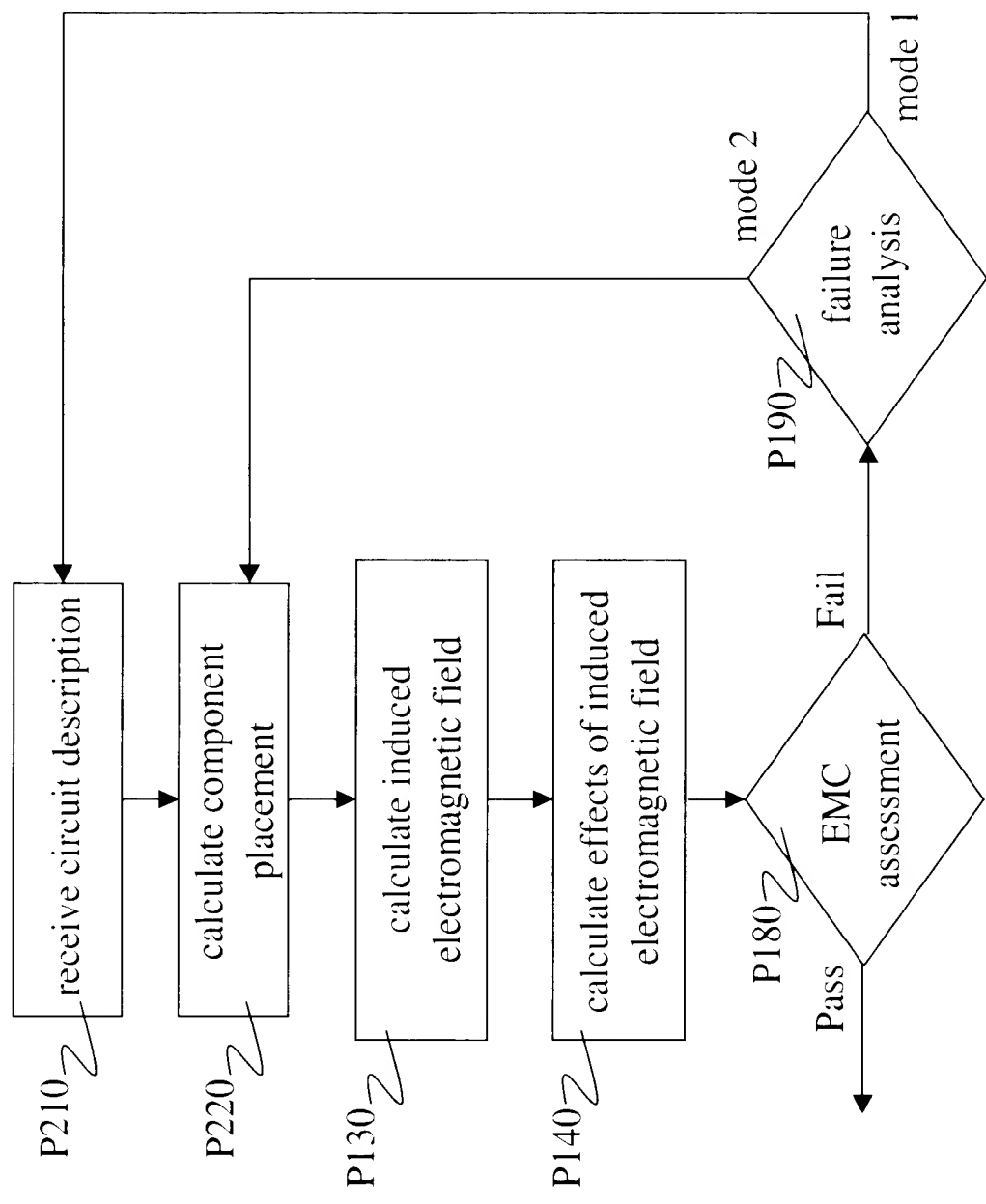


FIG. 77

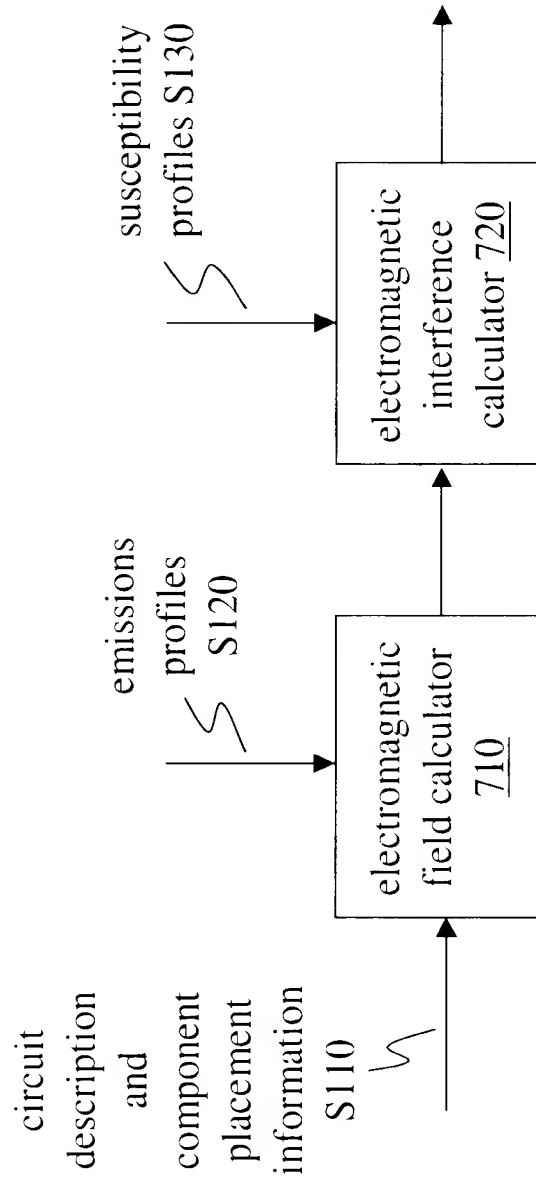
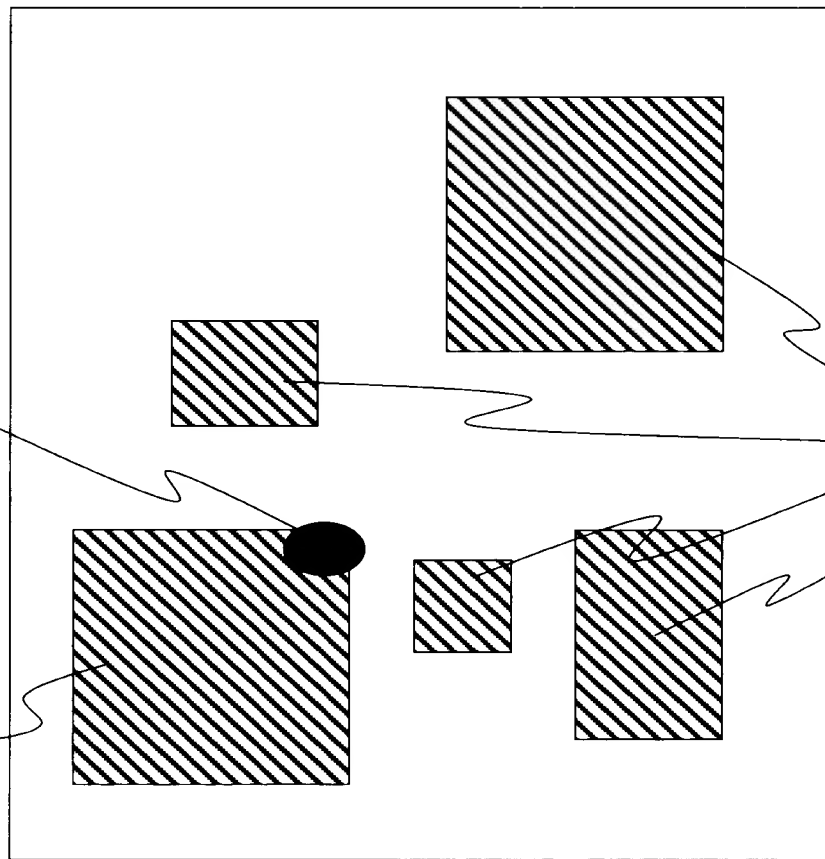


FIG. 78

board under  
planning

emissions profile

aggressor component



victim components

FIG. 79

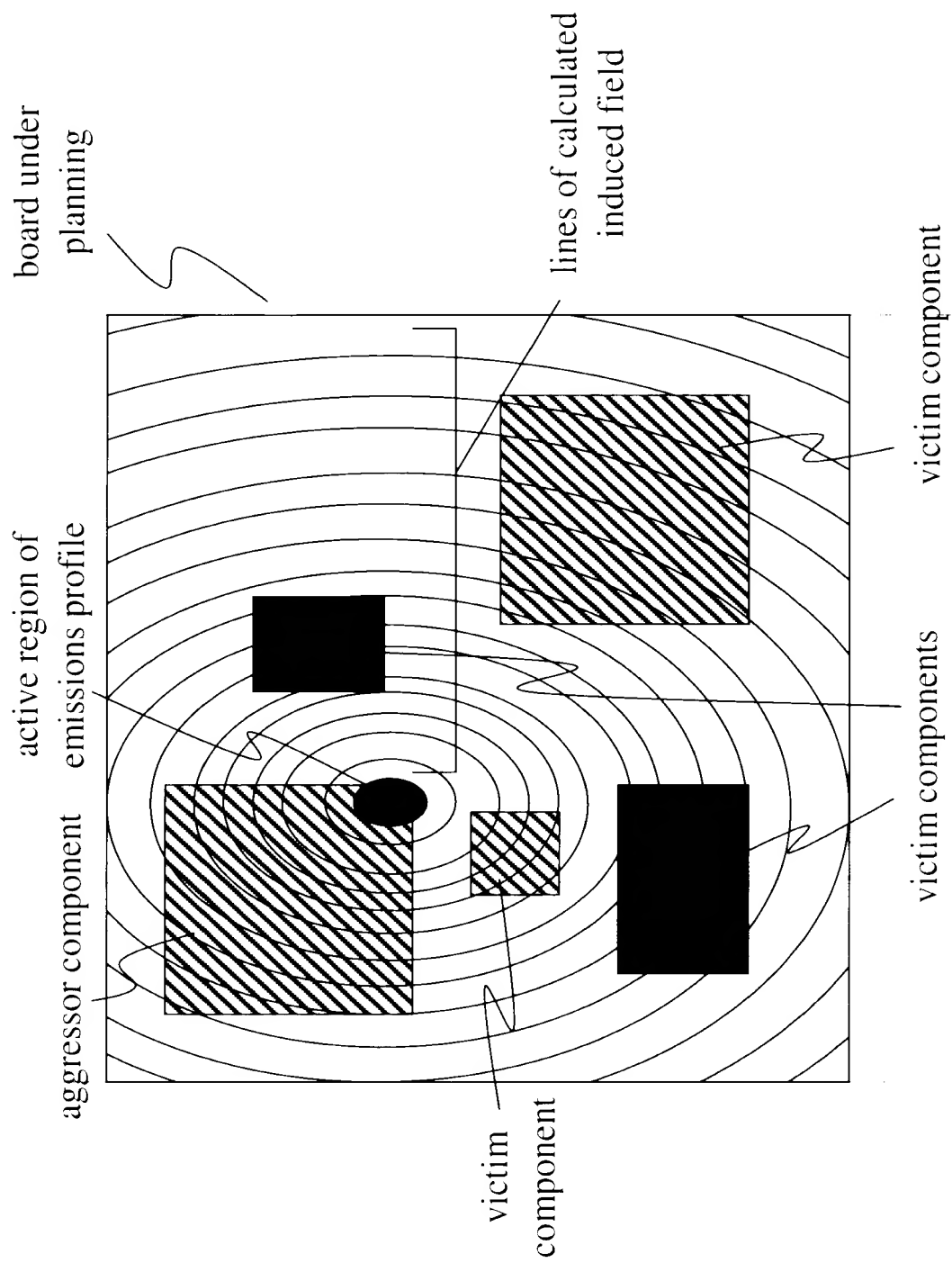


FIG. 80

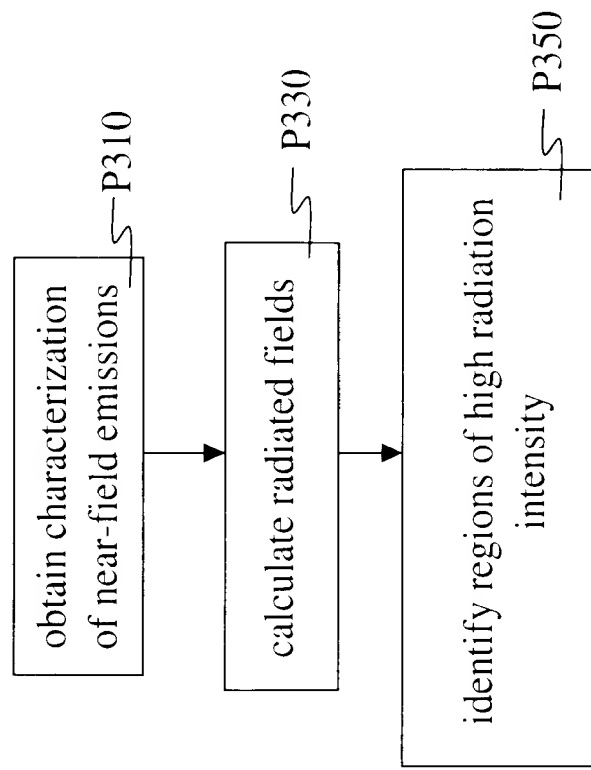


FIG. 81

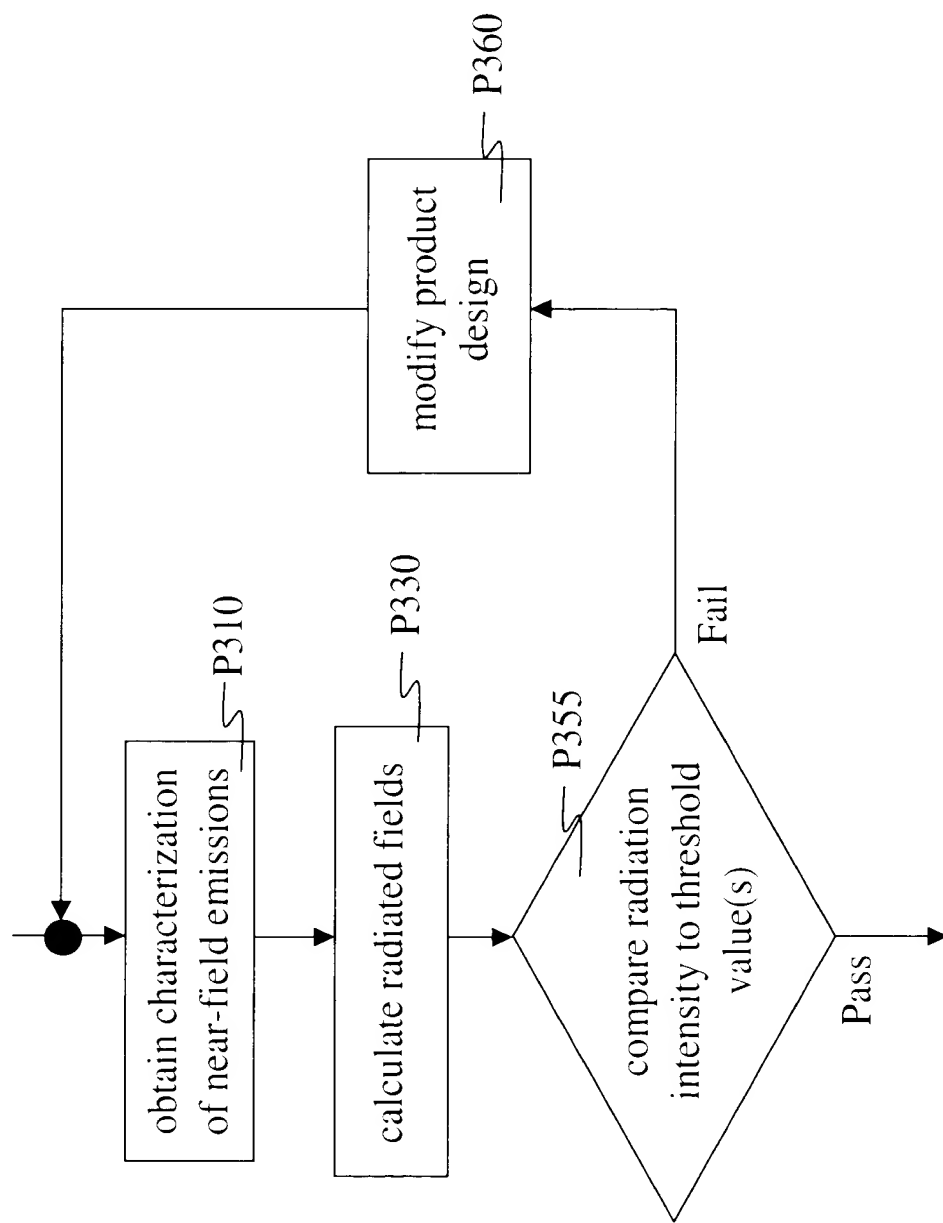


FIG. 82

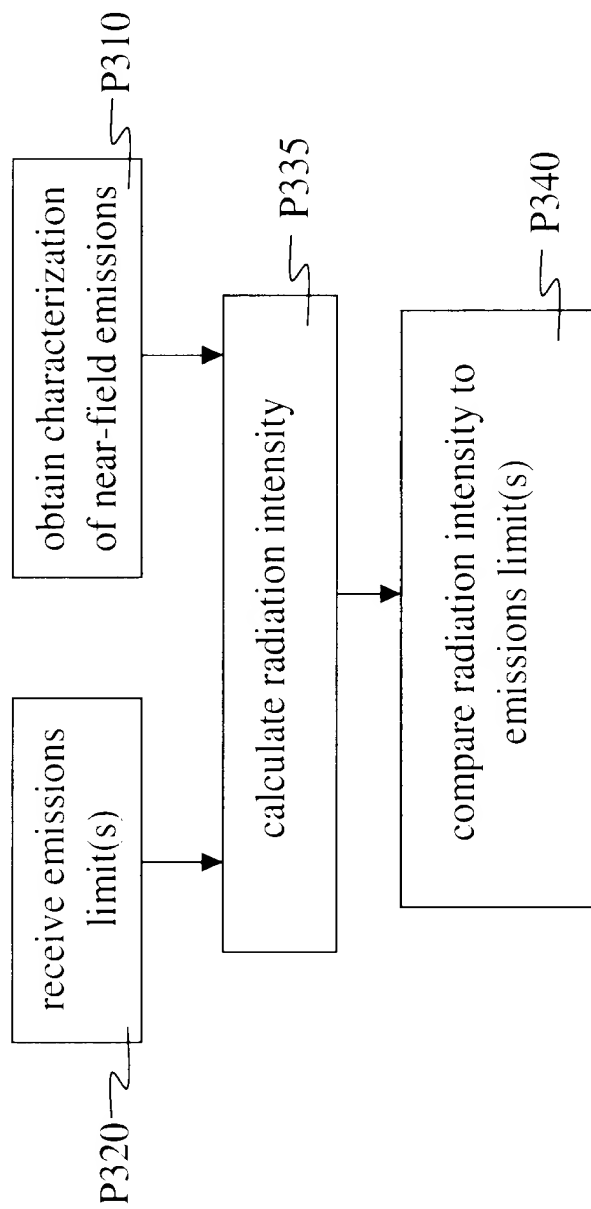


FIG. 83

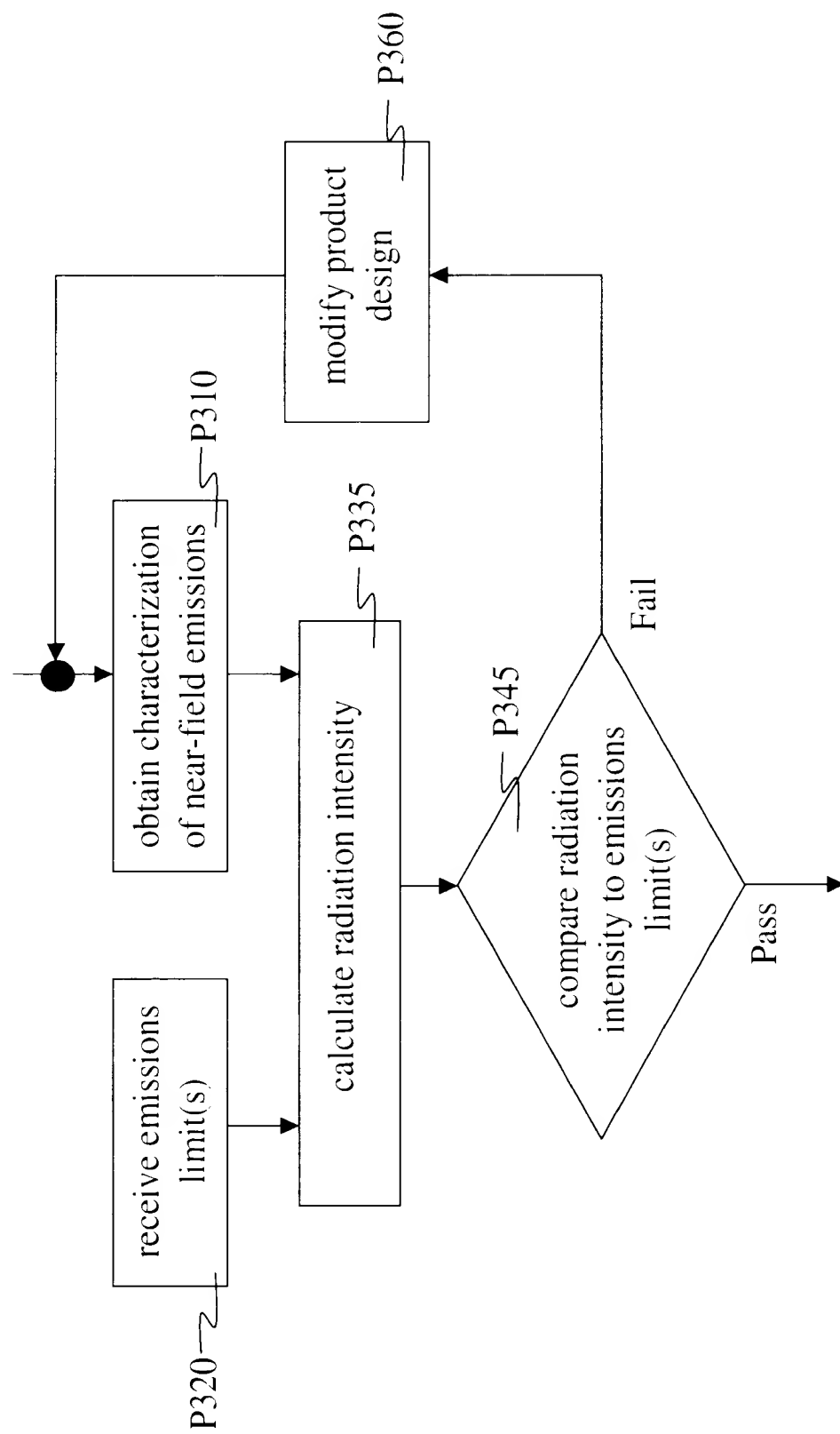


FIG. 84

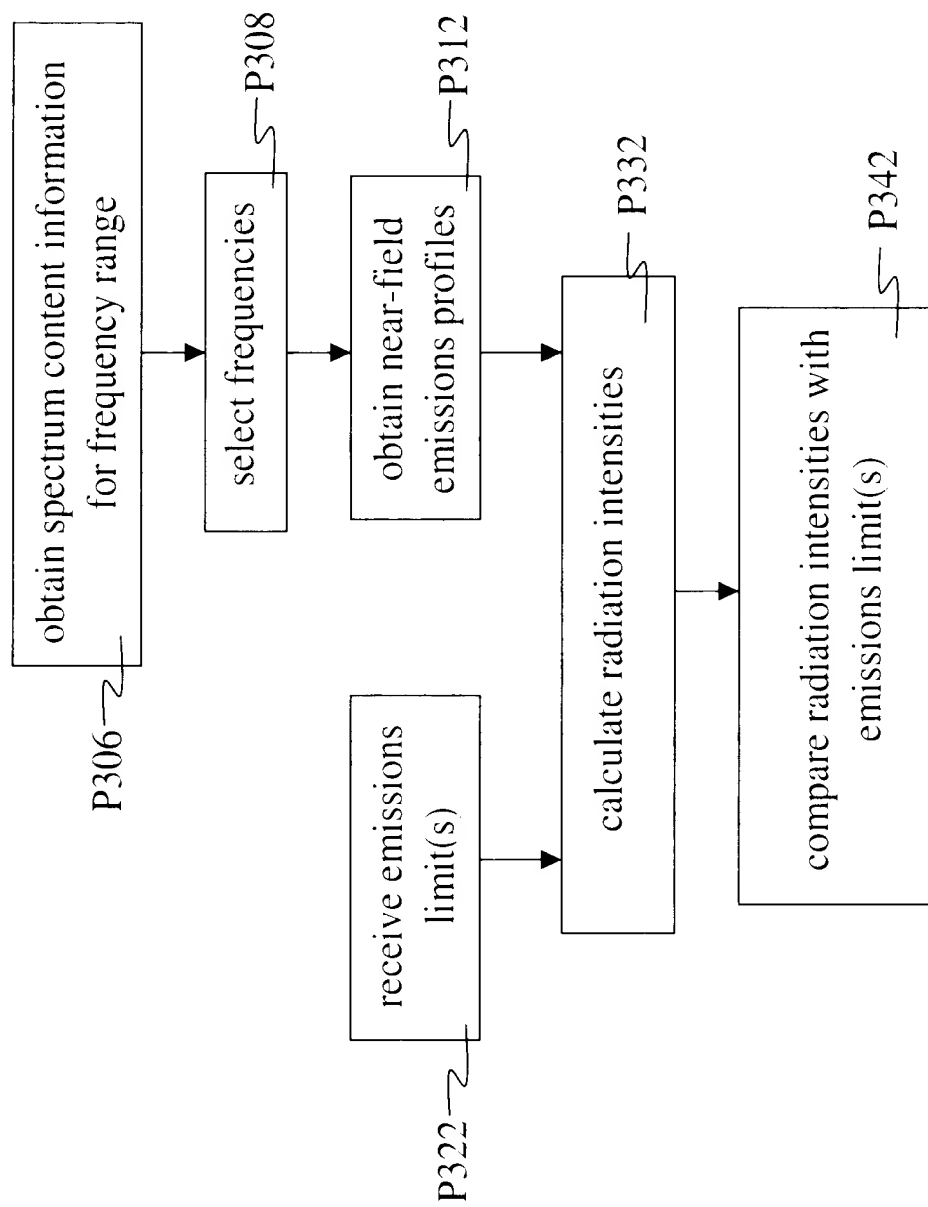


FIG. 85

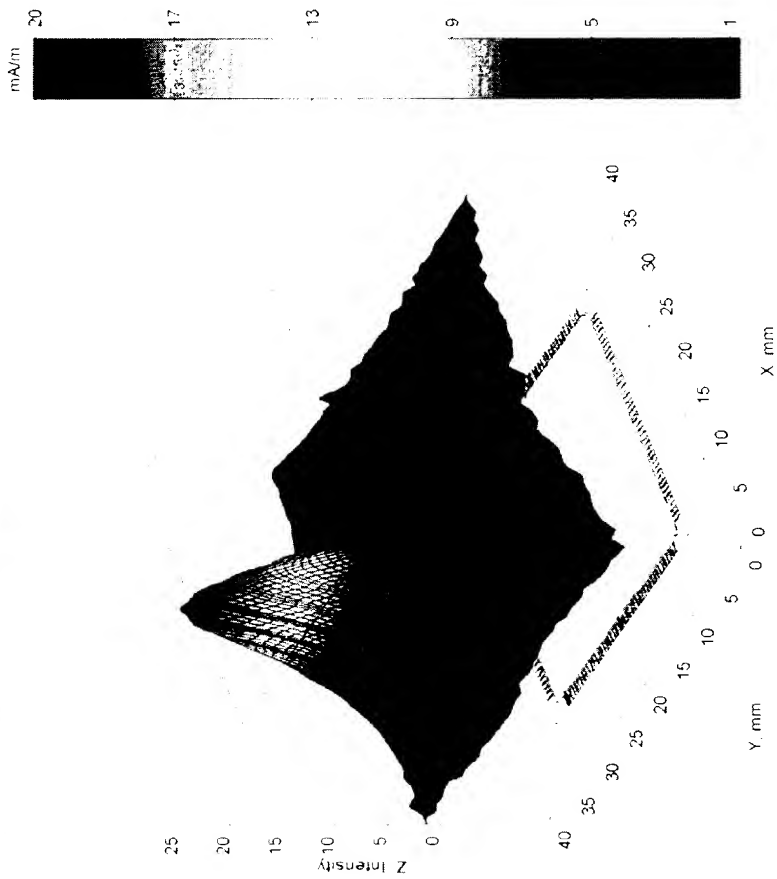
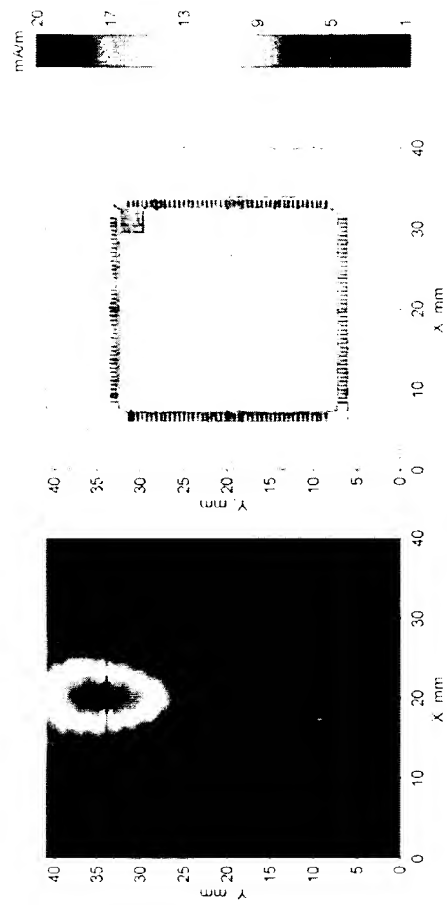


FIG. 86

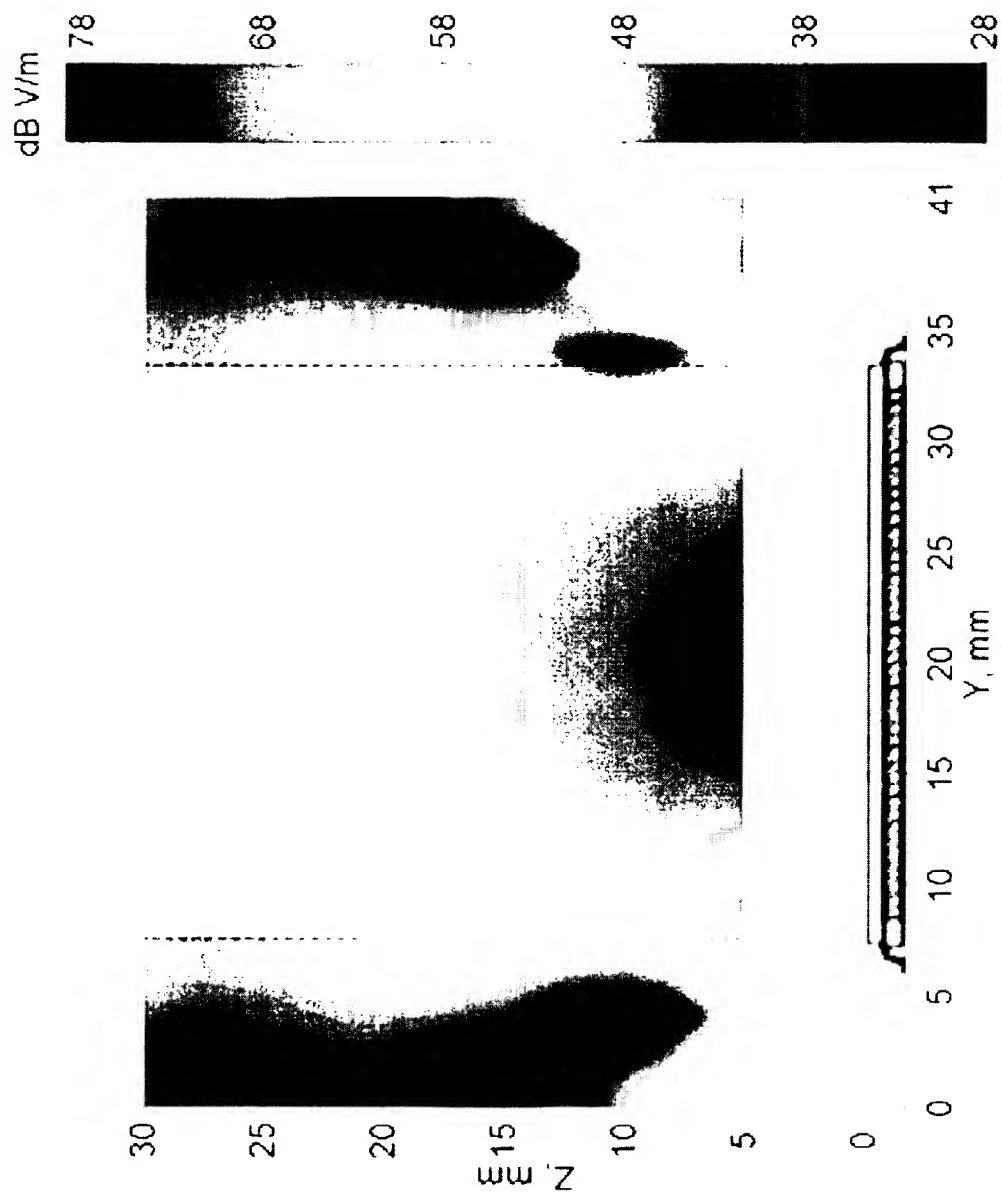


FIG. 87

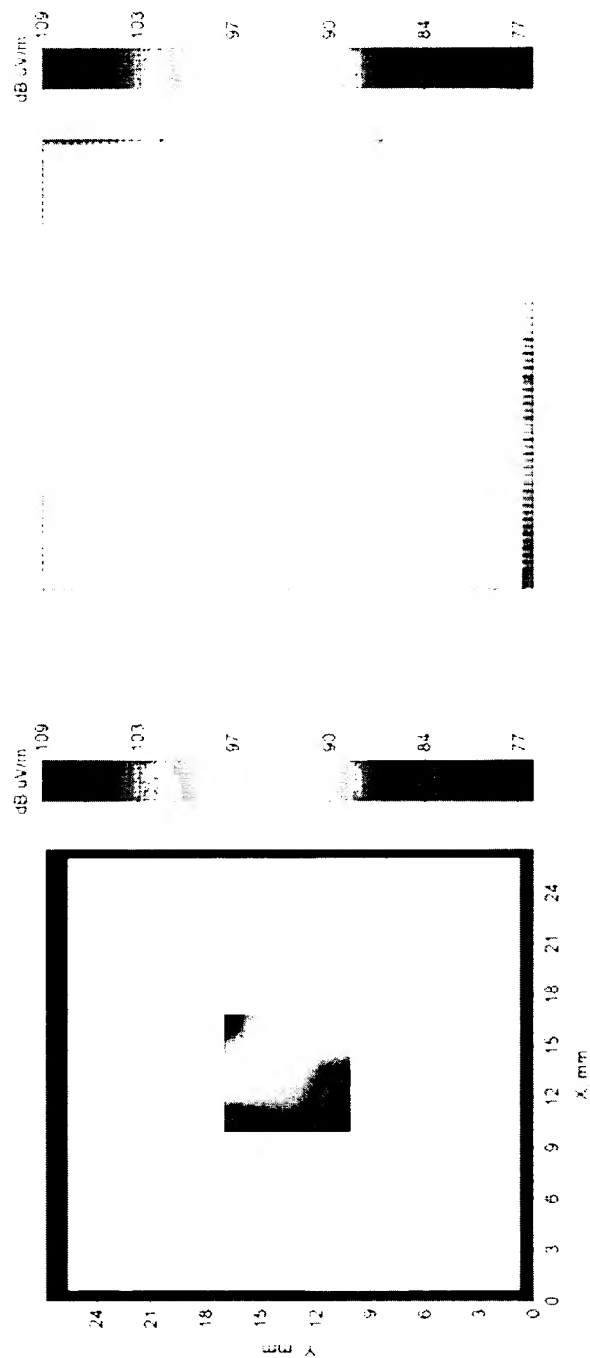


FIG. 88

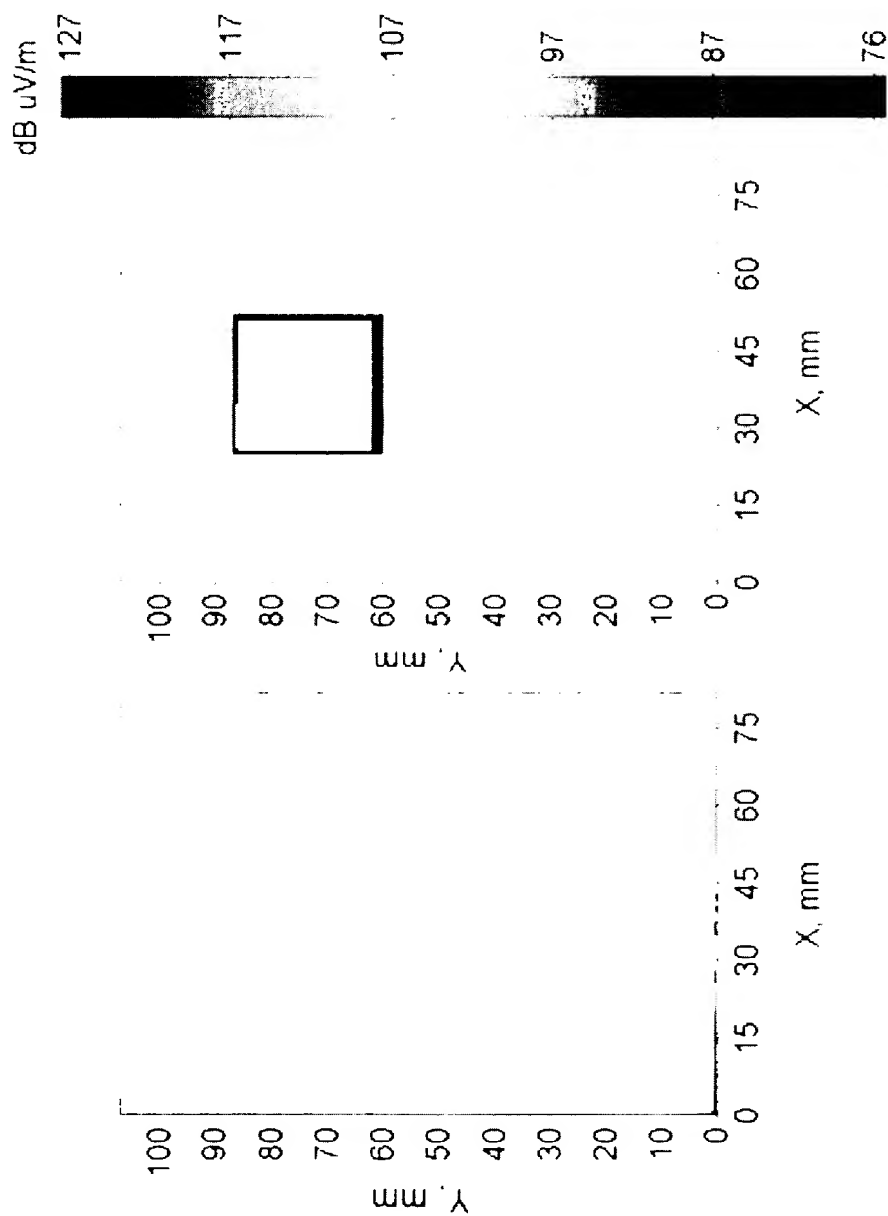


FIG. 89

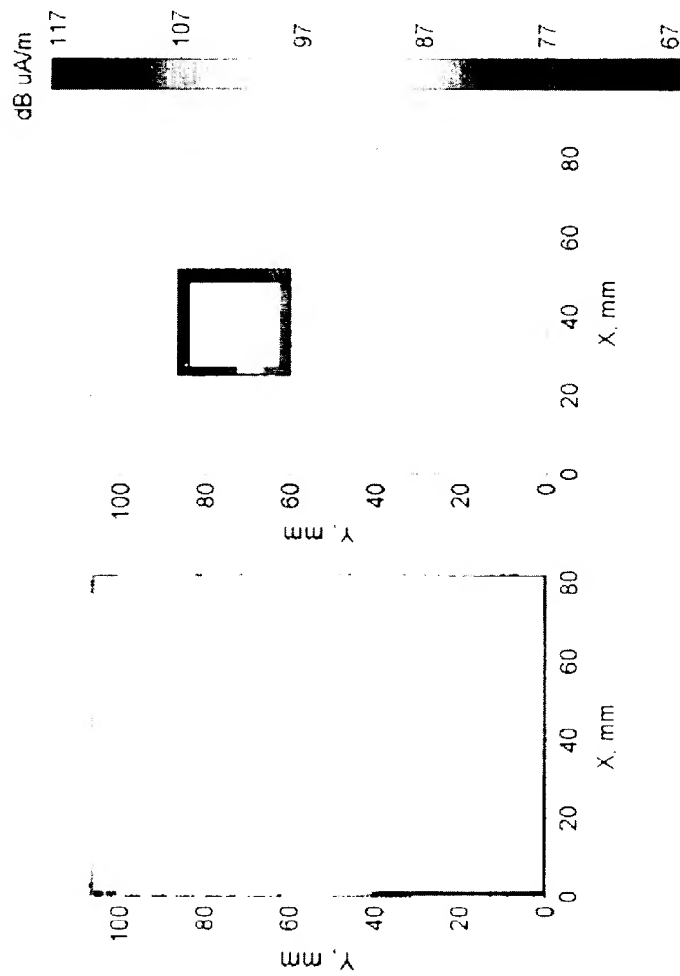
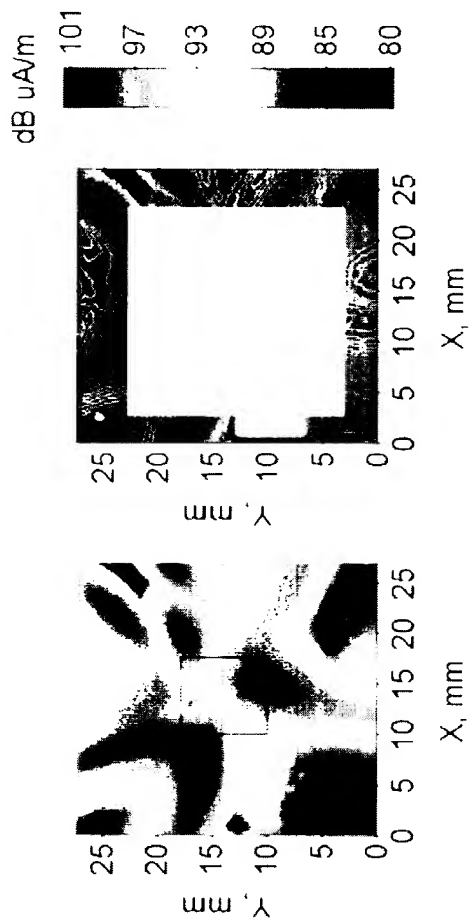
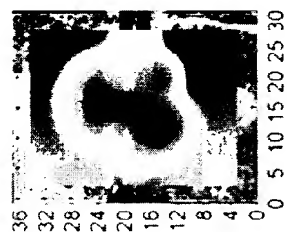
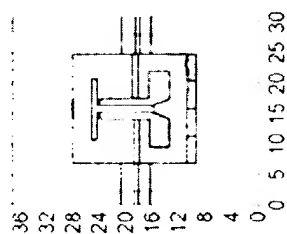


FIG. 90

dB  $\mu V/m$

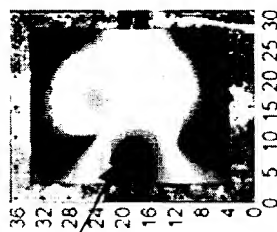
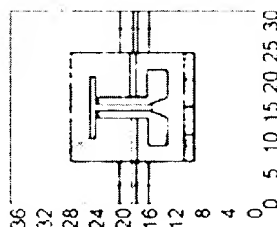
110
104
98
91
85
78



A. Functional Filter,  
1900MHz

dB  $\mu V/m$

103
95
87
79
71
62



Substrate Fracture  
Area

B. Defective Filter,  
1900MHz

FIG. 91

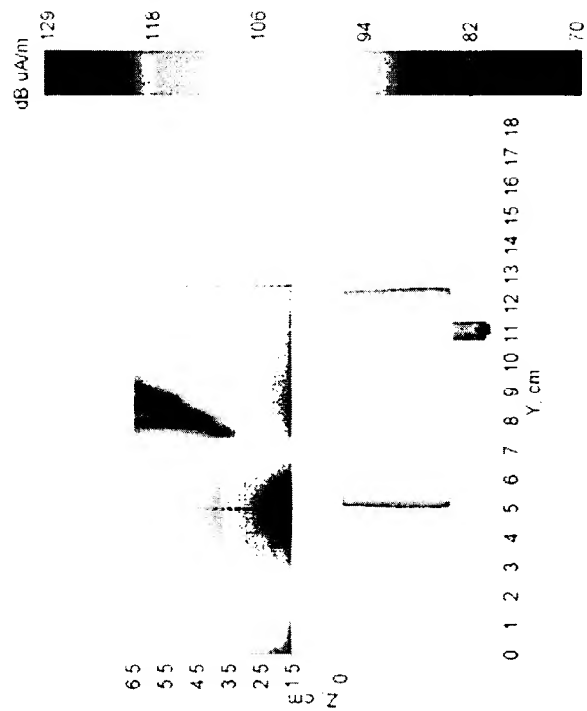
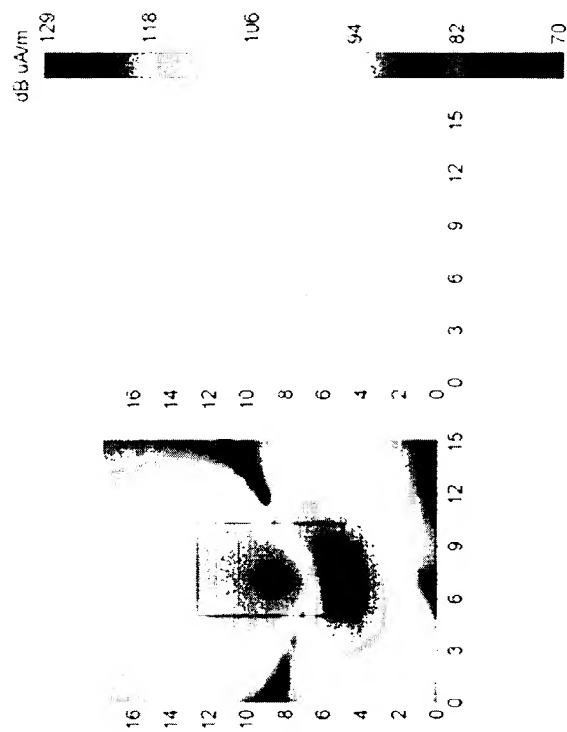


FIG. 92



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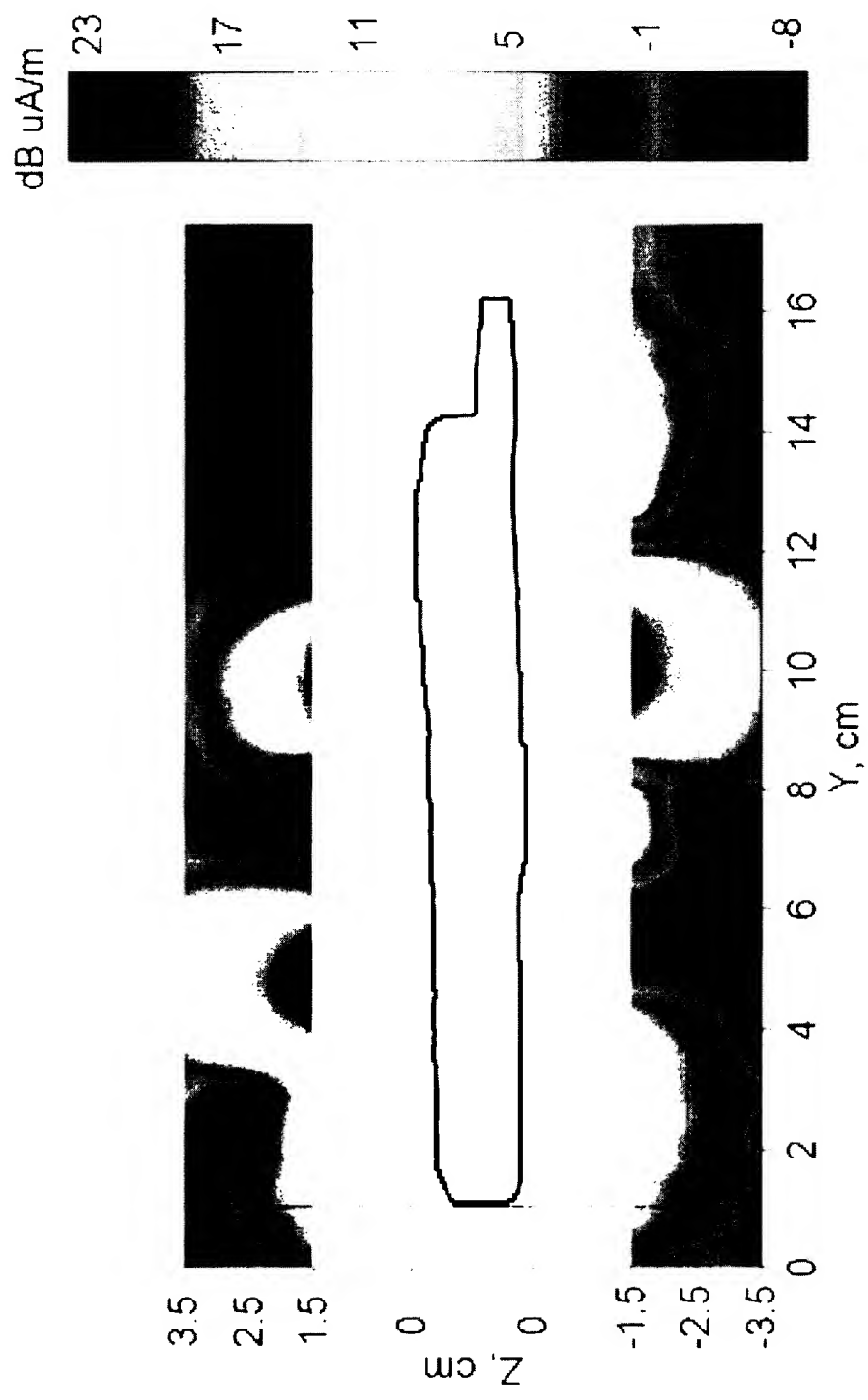


FIG. 93

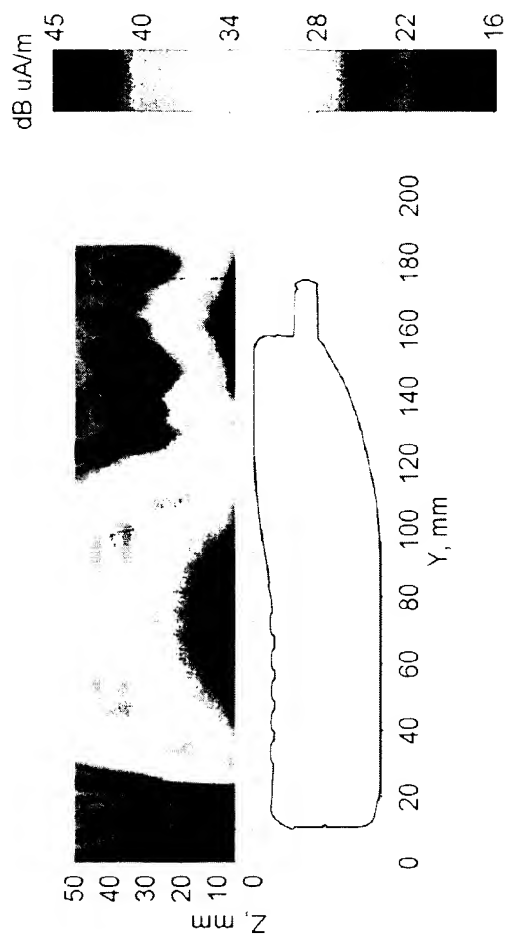
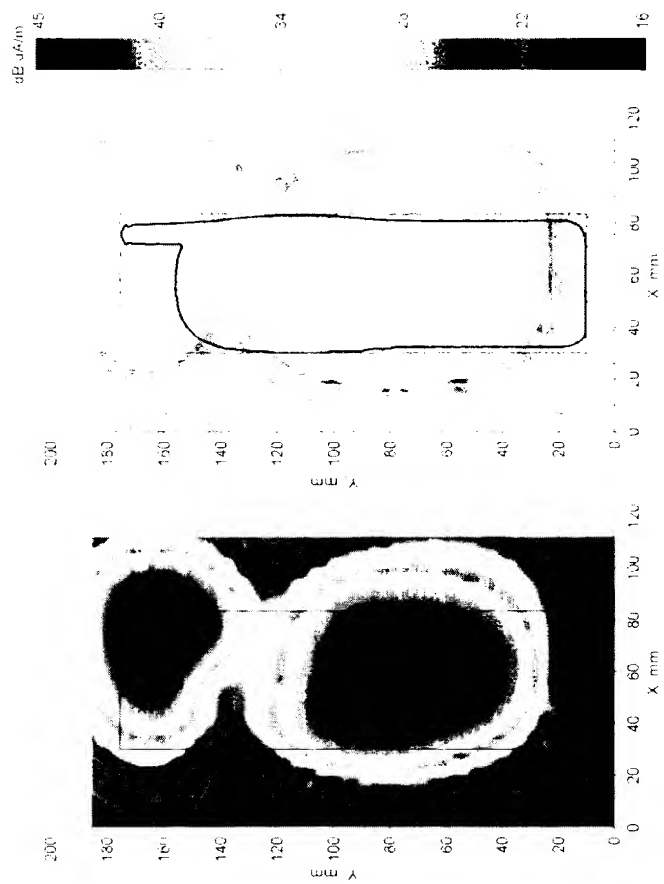


FIG. 94



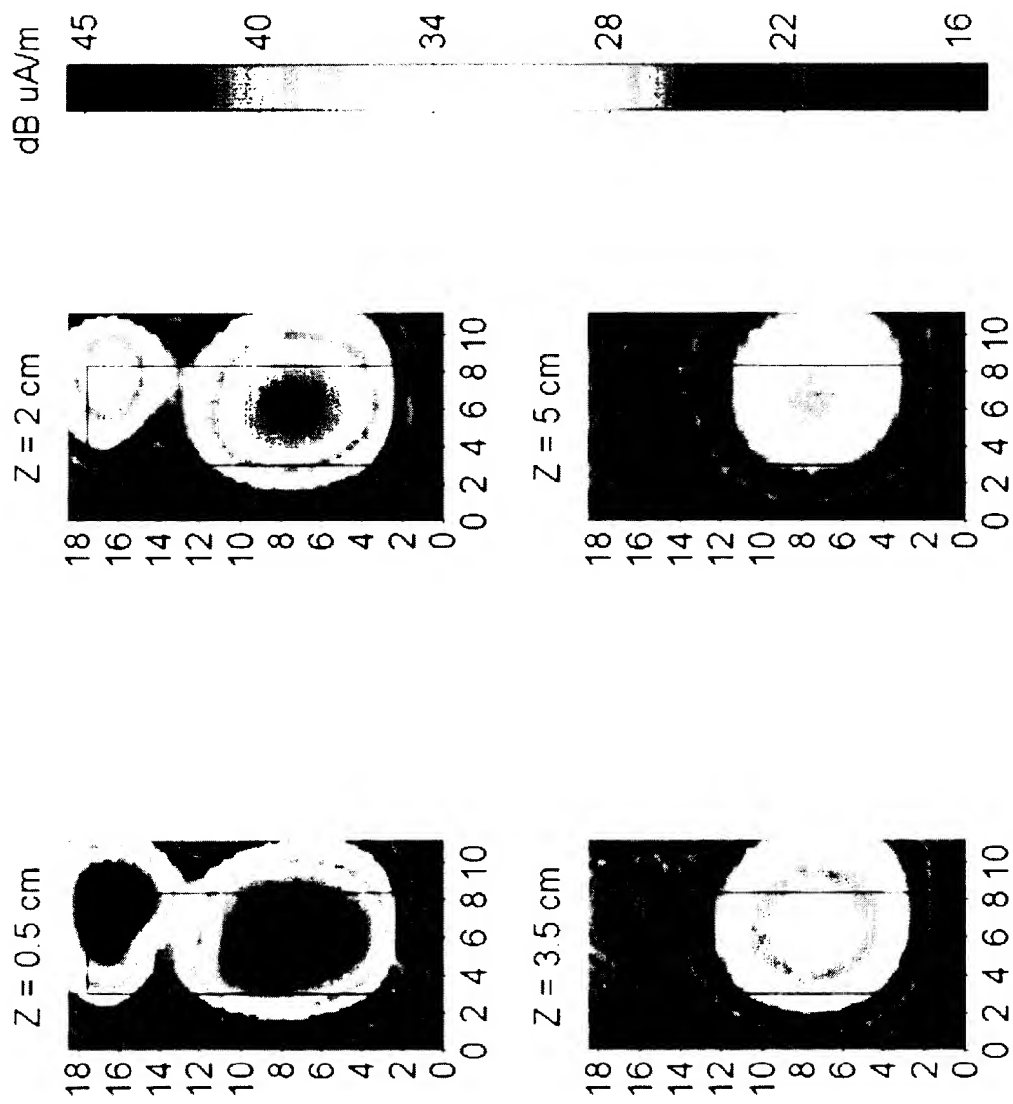


FIG. 95

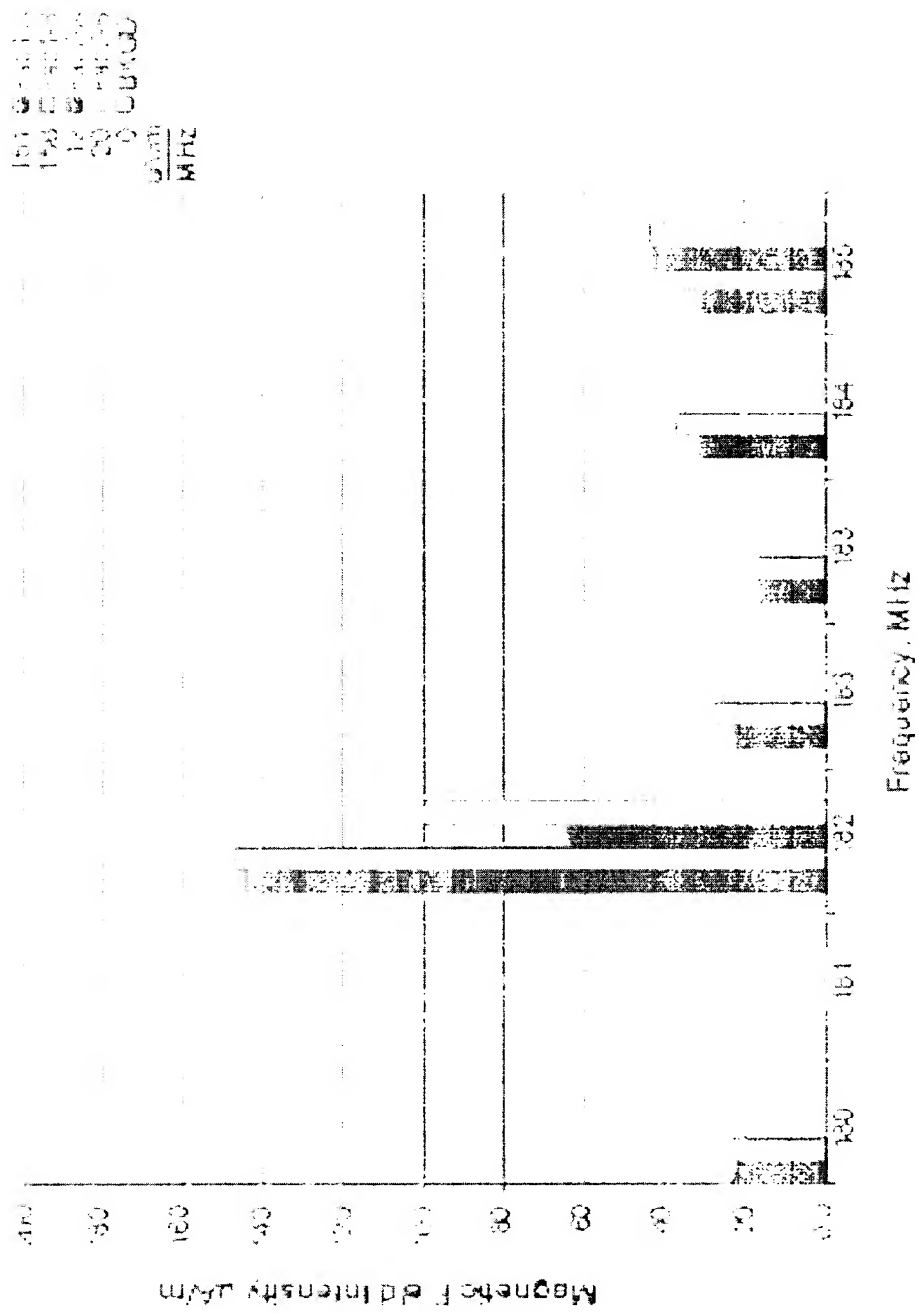


FIG. 96

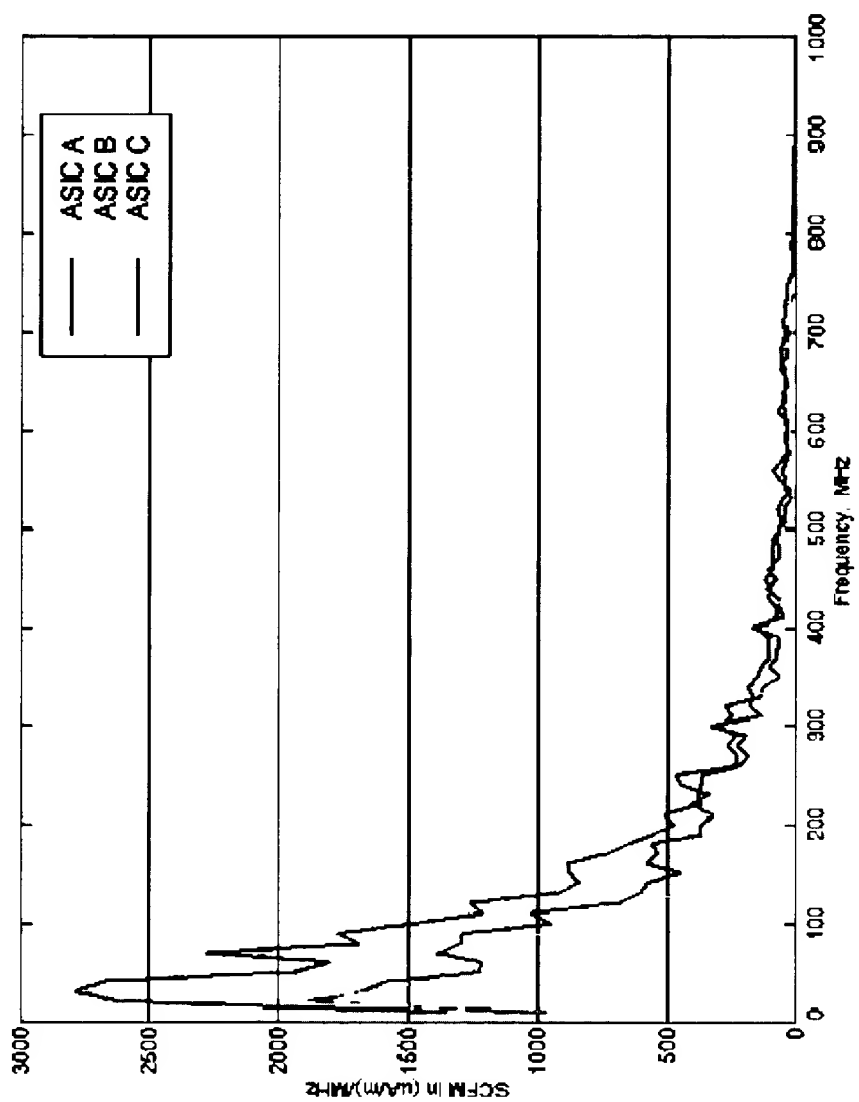


FIG. 97

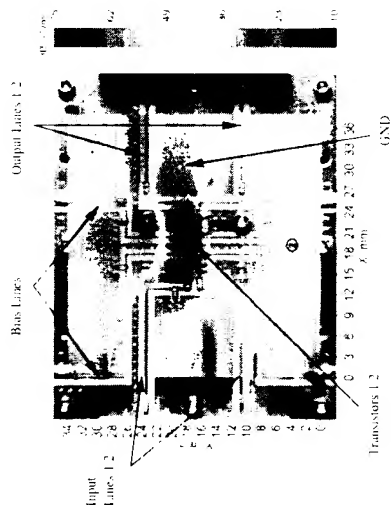
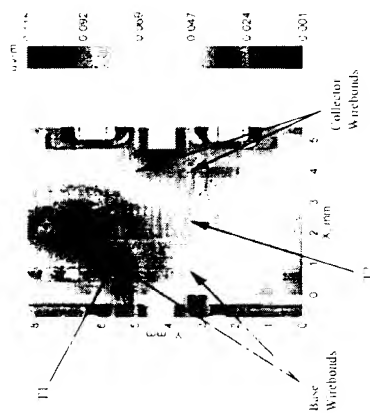


FIG. 98



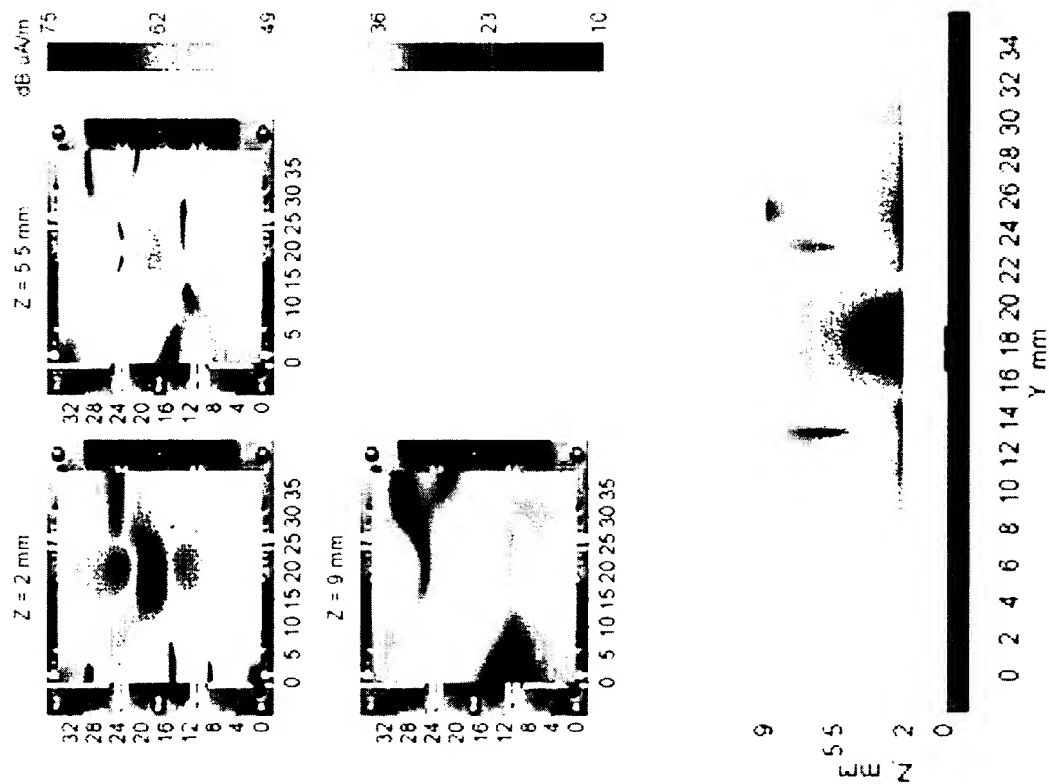


FIG. 99

FIG. 100

